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THIS WINTER ISSUE

is the first of 1908 in which circulars and price-lists are distributed as insets. The next and only other opportunity for this effective method of advertising will be the Summer Issue to be published on July 25. The distribution of circulars and price-lists through THE CHEMIST AND DRUGGIST is a remarkably effective form of advertising to those who deal in chemicals, medicines, and other kinds of chemists' goods. It originated with THE CHEMIST AND DRUGGIST, and our method of distribution enables us to accept insets actually printed to the order of advertisers in the manner they desire. This is important, as such insets are not officially permitted to be distributed by newspaper post, while THE CHEMIST AND DRUGGIST method has official sanction.

The Publisher has arranged the date for the annual Export Merchant Shippers' Issue of the *C. & D.* It will be on March 14, and particulars about it can be obtained from him.

Winter Issue Summary.

In this issue a number of special articles are printed, the nature of which is indicated in the following paragraphs:

A retailer tells from his experience how to choose the spot when starting in business (p. 156).

Mr. G. E. Oliver's notes on medicinal plants in South Africa deal this week with *Buphane disticha* (p. 140).

A walk through Kamuning Estate, Perak, where rubber is grown and citronella oil distilled, is described by Mr. E. A. Smith (p. 137).

The relations of James Petiver, F.R.S., apothecary, Ludgate Hill, and Sir Hans Sloane and Dr. Patrick Blair are described on p. 135.

The works of Messrs. Edward Cook & Co., Ltd., are described on pp. 153-6, the article including matters of historic and present-day interest. Messrs. Parke, Davis & Co.'s new premises in London are also described (p. 148).

The law as to warranties under the Sale of Food and Drugs Acts is explained by Mr. Marshall Freeman upon the basis of the decided cases (p. 166).

Mr. A. S. Griffin communicates a delightful note on the medicines sold in Rangoon by sasayahs, the article including a photograph of a Shan pharmacienne (p. 136).

"Wrinkles" communicates a number of useful formulæ for natural and synthetic perfumes. These are followed by some notes on the perfumes used by Napoleon I. (pp. 138 and 139).

The subject of advertising by pharmacists (that is, retail chemists who are in better-class dispensing businesses) is cogently dealt with by "Pharmakos" in an article beginning on p. 162.

Mr. W. Maskew, of Clacton-on-Sea, in an article illustrated with many photographs, describes pharmacies in Nice, Monte Carlo, and Mentone (p. 141). A poet sings of the sojourn of English chemists' assistants down South (p. 144).

In "*£ s. d.* of the Minor" "Thrift" tells how he saved 110%, and used only 35%, in obtaining the Minor certificate, and Mr. E. H. F. Brittain, the Fairchild Scholar, communicates notes on how to employ spare time in studying for the Minor examination (pp. 146-7).

In a chat on Japanese pharmacy a Japanese pharmacist tells us something about patent medicines in the Eastern Island Empire (p. 161). By a peculiar coincidence the same subject was dealt with on p. 161 in last week's issue of the "British Medical Journal," but space does not permit our making fuller reference to it this week.

THE NEWS in this issue cannot be adequately condensed in the space remaining. Therefore we deal solely with the more important items, and refer readers to the "Contents" opposite for details.

THE CORNER FOR STUDENTS prizes go to Messrs. W. Sivertsen and C. H. Priestman. Applications for the next "salt" should now be sent in (p. 104).

THE REPORTS of winter session meetings during the past week are prefaced with a portrait and biographical notes of Mr. C. B. Bell, President of the Hull Association (p. 132).

THE ACTION by Mr. A. Q. Tucker against the "Lancet" for libel resulted in the award of 1,000*l.* damages (p. 112). We deduce some lessons from it, especially in regard to the sale of poisons by manufacturers to customers (p. 113).

THE CENTENARY of Sir Humphry Davy's discovery of potassium and sodium has been celebrated at the Royal Institution by a lecture, in which Dr. T. E. Thorpe, C.B., gave a piquant account of Davy's work. This we report fully, with a portrait of Sir Humphry (p. 130).

AT THE EVENING MEETING of the North British Branch of the Pharmaceutical Society this week papers were read on Dr. Chamberlen's pills, ointment bases, and solution of chloride of antimony. We give abstracts of the first two on pp. 122-3, the pill one being illustrated with several interesting engravings.

THE changes in drugs and chemicals are mostly slight. Citric acid is easier, and the prospects are for lower prices this season. Phenacetin is tending upwards. Aconite and jalap are dearer. Lime-juice, mark, senega, and pimento are easier. Nitrate of silver and the cyanides of potassium and sodium are lower (p. 167).

THIS section of the *C. & D.* goes to press on Wednesday evening, but news and reports up to Thursday afternoon are inserted in the Coloured Supplement.

Corner for Students.

CONDUCTED BY LEONARD DOEBIN, PH.D.

Students, please note. All communications should be addressed to the Editor of "The Chemist and Druggist," 42 Cannon Street, London, E.C.

All communications and reports must bear the names and addresses of the writers, not necessarily for publication. The reports of those who ignore this rule are liable not to be dealt with.

QUALITATIVE ANALYSIS.

A MIXTURE of not more than three salts will form the subject of the next exercise in qualitative analysis. The mixture will comprise acids and inorganic bases occurring in the British Pharmacopœia, and is to be submitted to a thorough systematic examination, all its constituents are to be detected, and proof is to be given that the substances detected are the only constituents of the mixture.

Students' applications for portions of the mixture of salts (accompanied by a stamped and addressed envelope, not a stamp merely) will be received up to Tuesday, January 28, and the samples will be posted on the following day.

Students' reports will be received up to Saturday, February 8. Each report should contain a concise account of the work done, and should include a list of the constituents detected. In this list any substance regarded as an accidental impurity should be distinguished from the essential constituents of the salts composing the mixture.

SPECIAL NOTE.—The analysis announced above forms the fourth exercise in the analytical tournament for the current winter session. The usual monthly first and second prizes in this series of analyses will be awarded only to apprentices or assistants who are preparing for the Qualifying examination of the Pharmaceutical Society of Great Britain or of Ireland, which fact *must be attested on their reports*.

REPORTS.

The exercises in practical chemistry set for this month elicited a fair response, fifteen reports having been received. It was anticipated that as these exercises could be carried out easily, without access to an analytical laboratory, some students would be able to try them who would have been precluded by the vacation from attempting one of the usual analytical exercises, and this seems to have been realised to some extent.

Three points have come into prominent notice as results of the competition:

1. That almost without exception (but not altogether so) our correspondents rigidly carried out the details of the experiments as prescribed;

2. That in the majority of cases the details of what was observable in the experiments were stated concisely and accurately; and

3. That in the majority of cases the bearings of the observed phenomena on qualitative analysis were very imperfectly understood.

We may give here a very short outline of the main points involved in the exercises.

In Exercise I. the precipitate produced consisted of normal ammonium phosphate, $(\text{NH}_4)_3\text{PO}_4 \cdot 3\text{H}_2\text{O}$, which is formed (and is only stable) in presence of tolerably concentrated ammonia solution. On sufficient dilution with water, the precipitate underwent hydrolysis with the formation of soluble products. The lesson which the exercise was intended to convey was that undiluted ammonia solution (*Liq. Amm. Fort.*) should not be employed (1) along with ammonium chloride as a reagent in the iron group when the acid radical of the phosphates may be present, or (2) along with a soluble phosphate in testing for magnesium, since in either of these

cases a precipitate which only consisted of normal ammonium phosphate might be mistaken for a precipitate of a wholly different composition. As a matter of fact, undiluted ammonia solution is a reagent which should not be employed in analysis at all except for a few quite special purposes, and for these its use is always explicitly prescribed. If students use it or the diluted solution indiscriminately (as a few do) for all ordinary purposes in analysis, they are quite sure to fall into confusion sooner or later in consequence.

Exercise II. was designed to impress the fact that ammonium oxalate has a well-marked retarding effect on the precipitation of ammonium magnesium phosphate. In removing the last traces of calcium from a solution prior to adding ammonium phosphate as a test for magnesium, ammonium oxalate is commonly added and the mixture is boiled. Although only a very small quantity of ammonium oxalate is necessary for this purpose, a considerable excess is very frequently added. In the presence of this excess, the test for magnesium by means of ammonium phosphate is, at the best, far from delicate, and the precipitation is often retarded to such an extent that magnesium, when really present in small quantity, is supposed to be absent. It is safe, therefore, to destroy the ammonium oxalate by evaporation to dryness and ignition, then to dissolve the residue in a few drops of dilute hydrochloric acid (filtering, if necessary, from dark carbonaceous matter), and finally to add dilute ammonia solution in excess and a few drops of ammonium-phosphate solution.

It has not been possible, in the replies to individual students, to discuss every misconception in the various reports; so that we must simply refer correspondents to the preceding general remarks, which we hope may make the objects of this month's exercises clear to them.

A very gratifying feature is that, with a view to obtain more information, and further to elucidate the reactions involved in the exercises, several students tried other experiments in addition to those prescribed, and in a few cases discovered for themselves facts which were of real service to them in furnishing correct explanations.

Less satisfactory was the confusion, on the part of several students, of the addition of dilute ammonia solution "in excess" with the addition of ammonia solution in the undiluted condition. No "excess" of dilute ammonia solution, however great, would produce the precipitate of normal ammonium phosphate in Exercise I., whereas a relatively small quantity of the undiluted solution produced an abundant precipitate.

PRIZES.

The first prize for the best report has been awarded to WERNER SILVERTSEN, 17 Newton Road, Mumbles.

The second prize has been awarded to C. H. PRIESTMAN, 160 Milford Road, Nottingham.

First Prize.—Any scientific book that is published at a price not greatly exceeding half-a-guinea may be taken as a first prize.

Second Prize.—Any scientific book which is sold for about five shillings may be taken as a second prize.

The students to whom prizes are awarded are requested to write at once to the Publisher naming the book or books they select.

MARKS AWARDED FOR REPORTS.

1. Correspondents who are unqualified:				
Werner Silvertsen (1st prize)	94	Blue Pill	61	
C. H. Priestman (2nd prize)	91	Blantyre	60	
H. Booth	66	Menai	60	
Otto	62	W. J. G.	57	
Ruseus	62	Mayfield	46	
		Student	28	
2. Correspondents who are qualified, or who have not indicated that they are unqualified:				
Aabab	87	Donald McKenzie	46	
Boiling Point	76	Socius	97	

TO CORRESPONDENTS.

WERNER SILVERTSEN.—In Exercise I. your second explanation is the correct one, normal ammonium phosphate being precipitated. When ammonium oxalate is added in order to remove traces of calcium, it is desirable to destroy excess of the reagent—by evaporation to dryness and ignition—before proceeding to test for magnesium.

C. H. PRIESTMAN.—Your remarks on Exercise I, c, were somewhat general, and rather lacking in detail regarding the particular case under notice.

OTTO.—Your general statement regarding Exercise I, c, "that phosphates are precipitated by strong NH_4OH in the presence of NH_4Cl , but not by dilute NH_4OH ," is not correct. The reagent used to precipitate the so-called "insoluble" phosphates (i.e., the phosphates insoluble in water, such as those of the barium and magnesium groups) is dilute ammonia solution. Exercise I shows the result of employing undiluted ammonia solution. It is curious that Exercise II should have led you to the conclusion that the presence of ammonium oxalate "facilitates" the precipitation of magnesium.

RUSCUS.—The precipitation of $(\text{NH}_4)_2\text{PO}_4$ by the addition of liq. amm. fort. to a solution of $(\text{NH}_4)_2\text{HPO}_4$ is not quite analogous to the precipitation of BaCl_2 by the addition of concentrated HCl to the solution, since a salt of different composition separates in the former case. In Exercise II, the quantity of ammonium chloride used was more than sufficient to prevent the precipitation of any magnesium hydroxide when ammonia solution was added, as was shown by the fact that no precipitate appeared until the ammonium phosphate was added.

MENAI.—You omitted to indicate on your December report that you were not qualified, and you were classified accordingly. See the reply to "Student" below.

MAYFIELD.—Had you tried the simple experiment of adding liq. amm. fort. to the separate solutions of ammonium chloride and of ammonium phosphate, you would have found that the former was not precipitated thereby.

STUDENT.—You omitted to state on your December report that you were unqualified, and your *nom de plume* did not in itself convey that information. Many Minor and Major men, and many men with grey hair, or with little or no hair left to turn grey, are "students" still. Your place in the tournament is in no way affected by your having been incorrectly classified in our last list.

AABAB.—You overlooked the fact that ammonii phosphas B.P. is $(\text{NH}_4)_2\text{HPO}_4$; compare the reply to "Ruscus." That carelessness in working which might lead to a precipitate of normal ammonium phosphate being mistaken for ammonium magnesium phosphate is not unknown. The occurrence of the mistake is frequent, and this very fact suggested Exercise I.

BOILING POINT.—Note that the form in which magnesium is ordinarily precipitated in qualitative analysis is as ammonium magnesium phosphate, not magnesium phosphate. Although the precipitation of ammonium magnesium phosphate is retarded by ammonium oxalate, the dissolution of the precipitate in the latter reagent is not easily capable of observation.

DONALD MCKENZIE.—Read the reply to "Ruscus."

Prescription Problem.

The following prescription is sent to us by a subscriber for the purpose of deciphering. We cannot make it out, but probably some of our readers are familiar with the prescriber's handwriting and abbreviations, and can tell us by postcard what is meant:

*By Sutt Chlor Co. for the
self inflator - 3711.
Sig. To be used as directed
at bed time
Supply a self inflator with
the directions*

We offer this week copies of the "Art of Dispensing" for original prescriptions suitable for reproducing in this column. They should be addressed to the Editor, and be accompanied by the name and address of the sender. Those not accepted will be returned.

English News.

Local Newspapers containing marked items of news interesting to the Trade are always welcomed by the Editor.

Brevities.

The first of the schedules under the Census of Production Act in respect of the business done last year has been issued to the mining industry.

The Ware employés of Messrs. Allen & Hanburys, Ltd., manufacturing chemists, have contributed 21*l.* 18*s.* 9*d.* to the funds of the Hertford General Infirmary.

A lady at Wareham, Dorset, in announcing that she has purchased a lethal-box for the merciful destruction of animals, says a charge of one penny to defray the cost of the chloroform used will be made.

Mrs. Susannah Sellers, wife of Mr. John Sellers, a manufacturing chemist in the City, and residing at Crouch End, threw herself into one of the ponds in Parliament Fields last week, but was rescued by a keeper.

At Thames Police Court on January 18, Aaron Goldstein and Evan Rachwahl were each fined 7*l.* and 5*l.* 5*s.* costs, or four months' imprisonment in default, for being in unlawful possession of 264 oz. of saccharin.

An exhibition of foods and beverages is being held in the "Tribune" offices, Bouverie Street, this week. Among the firms exhibiting are Messrs. Allen & Hanburys, Ltd., Brand & Co., Keen, Robinson & Co., Ltd., and International Plasmon, Ltd.

At Bow Street Police Court on January 20, Joseph Wood, of St. Martin's Lane, W.C., was fined 3*l.*, and 4*s.* costs for having as a retailer received 5 gals. of spirits without cancelling the accompanying certificate. The prosecution was taken by the Inland Revenue under the Spirits Act of 1880.

"Chemists and the Codex" is the title of an article in the "Tribune," of January 18. Details are given of the compilation of the book and the objections to it put forward by manufacturers. An interview with "a pharmaceutical chemist, who does not take a strong view either way," is included.

At a meeting of the Proprietary Articles Section of the London Chamber of Commerce on January 17 it was decided to send delegates to Melbourne, Victoria, in connection with the Commerce Act amendment, as regards proprietary medicines and infants' foods. Mr. Glover and Mr. Kenningham accordingly leave this week.

At the Mansion House, on January 16, Paul Hopff, 33, a German, of Hillfield House, Sawbridgeworth, manager of the produce department of the American Trading Co., Crutched Friars, E.C., was charged with embezzling various sums amounting to 1,243*l.* 16*s.* 4*d.* Prisoner, who pleaded not guilty and reserved his defence, was committed for trial.

The question of shop hours in Blackburn has aroused a good deal of bitterness from time to time, but this is now fast disappearing. In the annual report of the Tradesmen's Association the following figures were given relative to the recent unsuccessful effort to obtain a general closing order for all traders of the town: Chemists and herbalists, "Yes," 37; "No," 34; Errors, spoilt, etc., 0; total votes received, 71; no votes, 9; total, 80.

In the City of London Court on January 21, before Judge Rentoul, K.C., the Commercial Electro-Chemical Analysis Co., Ltd., 15 Queen Street, E.C., sued the X Electric Accumulator Co., Ltd., 18 Leadenhall Street, E.C., to recover four guineas for making an analysis of oil of vitriol and fees for consultations in connection therewith. After evidence and argument judgment was given for the defendants, with costs.

Masonic.

Mr. Roland Prince, pharmaceutical chemist, Longton, has been appointed a steward of the Etruscan Lodge of Freemasons.

Mr. Victor J. Woolls, chemist and druggist, Cecil Square, Margate, has been appointed organist of the Union Lodge of Freemasons.

Mr. H. C. Edwards, chemist and druggist, Hastings, has been installed Worshipful Master of the Derwent Lodge of Freemasons.

New Patent Rules.

The new rules which were rendered necessary by the coming into operation of the Patents and Designs Act, 1907, have now been issued. The rules carry out the several novel provisions of the new Act which came into force on January 1. The parts which more particularly concern us are the rules relating to chemical inventions. These specify that the typical specimens or samples of chemicals, etc., which an inventor may now be required to furnish must, when demanded, be supplied in duplicate, and, unless it is otherwise ordered, must be in glass bottles of a total height not exceeding 3 in., and of external diameter of $1\frac{1}{2}$ in., such bottles being securely closed by well-fitting stoppers, and sealed. A sample must be identified with the substance described in the specification by an adhesive label bearing a description, or else by an otherwise securely attached label 3 in. wide and not more than 4 in. long. Colouring matters must be accompanied by printed or dyed samples of materials as nearly flat as possible, and securely attached to cards 13 in. long by 8 in. broad. Such cards must "bear a full description of the processes by which the respective dyed or printed effects were produced, including the compositions and strengths of the various baths, the temperatures, duration of treatment, degree of exhaustion of the dye-baths; in the case of dyed fabrics, the percentage of colouring-matter fixed on; in the case of prints, the composition of the printing paste and other necessary information. This description must also clearly identify the substance used with that described in the specification." Poisonous, explosive, easily inflammable, or corrosive substances must be marked as such.

Contracts.

Barnsley Town Council.—Mr. Ernest Nash, pharmaceutical chemist, for drugs for the Kendray and Smallpox Hospitals for the ensuing year.

Brightlingsea (Essex) Urban District Council.—Mr. C. F. Aldrich for disinfectants.

Camberwell Guardians.—Messrs. P. B. Cow & Co., Cheapside, London, E.C., for twelve water-beds at 4s. 6d. per lb. The approximate total is 26l. 13s.

Harrogate Corporation.—Mr. George Weston, chemist and druggist, Parliament Street, for disinfectants.

Warrington Board of Guardians.—Messrs. Hill & Co., chemists, Buttermarket Street, for twelve water-beds and twelve water-pillows at 4s. 6d. per lb.

At a meeting of the Kendal Board of Guardians on Saturday a letter was read from Mr. A. Heap, chemist and druggist, complaining that he had not received orders for all the drugs supplied, as he should have done according to his contract. It was explained that this was due to a misapprehension, and to put matters right it was decided to extend Mr. Heap's contract to the end of March.

Liverpool Notes.

A week or two ago "Truth" was inclined to ridicule a manifesto of the National Glass-bottle Manufacturers' Union regarding the danger of using old bottles. In this city there is quite a trade in secondhand "medicals," which are sold, after being nominally washed, at 6s. per gross. Both doctors and chemists purchase them.

Since the year commenced inconstancy of the weather has been responsible for the "boom" in business. The nature of the illnesses which are so prevalent lends itself well to extensive and varied demands on the chemist's stock. Unfortunately a good many of our chemists are themselves on the sick-list, which suggests the idea that the "open door" is not always conducive either to health or to business.

This session the Birkenhead Chemists' Association seems to be indulging in quite a variety entertainment, which greatly contrasts with the staid respectability of its neighbour on the Liverpool side of the water. The ethics of the drama, the unreliability in content-capacity of medical bottles, have each been seriously dealt with; whilst the very latest has been the emphatic deliverances on the title-question of Pharmacist v. Chemist and Druggist.

Midland Notes.

Last week there was opened, on the very site of the house that Priestley lived in in Birmingham, a large institute, under the auspices of the Rev. J. H. Jowett, pastor of

Carr's Lane Church, its purpose being clean amusement for the people of slumdom.

Mr. M. Thompson, who writes to the "Post" concerning County Councils' extravagance, is the father of Mr. Charles Thompson, and formerly had a successful business as a chemist at Bedworth, now in the occupation of Mr. Oates. He is a hale, hearty old gentleman, in retirement at Sutton Coldfield.

An interesting course of lectures by Mr. Collinge, M.Sc., on "Insect Pests of the House," is to be given at the university, beginning on January 29. The conditions favourable and unfavourable to the diffusion of such pests will be treated of, and preventive and remedial measures, natural enemies, and artificial remedies, will be described. The course is one which chemists who would like to cultivate trade in horticultural chemicals and preparations should look into.

Sheffield Notes.

The Lemoine "diamond" case has brought to light an aged local inventor who claims that forty-five years ago he produced dust crystals from carbon. He states that the late "Professor" Allen and his nephew, of Surrey Street, thought so much of his experiments that the latter called on him for further information.

The winter sales are now in full blast, and the catalogue of one of the departmental stores has received its usual double welcome in the homes of local pharmacists, the guide-wife being no more eager to observe the bargains in frocks than her husband those in drugs. Is it imagination or does one observe a more chastened air about the announcements of the reductions in the drug department? "Chemists' Sundries at Reduced Prices" is quite a subdued heading, and such modest announcements as "Angier's Emulsion, Scott's Emulsion, and Kepler Solution sold at the lowest retail prices" and "Wincarnis and Hall's Wine sold at the lowest minimum prices" are surely unusually diffident in tone? However, a few of the "bargains" are interesting: cloudy ammonia, 1s. 3d. size reduced to 8½d.; lanoline (best British) reduced to 3d. and 5½d. per tube; and Lever's pure glycerin from 1s. 3d. to 10½d. per bottle. Chesebrough's vaseline, 1s. size, is offered at 4d., and seidlitz powders (1s. size box) may be obtained, it is said, for 5½d. Parrish's Chemical Food 1s. for 7½d., and finest cod-liver oil (Norwegian), 1s. 5d. for 11½d., and 1s. 2½d. for 7d. Apenta water is offered at 11d. per bottle, and Vichy (Celestins) at 9s. 6d. per doz.

Glass-bottle Trade.

A meeting of the Yorks and district glass-bottle manufacturers was held at the Métropole Hotel, Leeds, on December 31 last, when representatives were present from Barnsley, York, Rotherham, Castleford, Leeds, and other glass-bottle centres. The employés had held a meeting previous to that, at which it was decided to demand a 5-per-cent. advance in their wages with a further reduction in the percentage of apprentices to be allowed to work with the men. At the masters' meeting an animated discussion took place as to what advance should be made. Opinions varied from 5 per cent. to 10 per cent., and as the members present could not arrive at a unanimous decision the Chairman suggested that another meeting should take place at a later date. The second meeting was held on January 16, when it was decided to make an advance of 5 per cent. Many makers have since advanced their prices 7½ and 10 per cent. The advance does not apply to phials.

The Doctor Objects.

At the annual meeting of the Tewkesbury Dispensary on January 15, Dr. Devereux took exception to larger payments being made to the chemists of the town for each patient than to the medical men. He argued that the doctor's services were as valuable as those of the chemist, and the former ought to receive as much as the latter. Mr. L. L. Stroud, chemist and druggist, said that whereas the doctors only examined patients and gave prescriptions, chemists had to be paid for their labour as well as the drugs, and they were frequently out of pocket. It was decided not to alter the present payments.

The Cough Lozenges.

On January 20, Dr. F. J. Waldo held an inquiry at the City Coroner's Court on the body of an elderly man named

Hambling, who had died suddenly in City Garden Row, E.C. In the course of the proceedings it appeared that the deceased would not consult a doctor, but had for years been in the habit of taking Rowland's cough lozenges. The Coroner: What do Rowland's cough lozenges contain? A Juror: Paregoric. The Coroner: What is paregoric?—When I was a student, it was B.O.O.C. Another Juror: Tinc. camph. co. The foreman of the jury said that hundreds of boxes of these lozenges were sold at nearly every street corner, and one could hear the men shouting out while one was at work. He did not think people knew what is in them. One of the jury said he thought the lozenges contained opium. The Coroner: Well, opium is a scheduled poison under the Pharmacy Act of 1868. The Coroner questioned Dr. Black (of St. Bart.'s) with a view to showing that if these lozenges contained opium, and were sold indiscriminately, the Act was not being conformed with. He said they could easily find out what the lozenges contained by having them analysed. A juror, who said his people were chemists and that he had some knowledge of the trade, stated that he expected that the lozenges contained tinc. camph. co. *sine* opio, which would exclude them from the schedule, but paregoric, strictly speaking, is tinc. camph. co. Another Juror: Would it not be in the public interest if the City analyst analysed these lozenges? The Coroner: I think it would be highly so. I have had a case of a secret remedy before me—I must not mention the name—but it came out in court that a gentleman who was one of the leaders of the Bar took a secret remedy which contained a poison, and died from the effects of it. I think, perhaps, that your suggestion would be a good one. The foreman of the jury said these lozenges had been sold for many years, and he thought it was evident that they did not come under the Act, or it would have come out before now. The Coroner: The gentleman of whom I have spoken took something out of a bottle, which contained enough poison to kill I don't know how many people. It was a scheduled poison, but the bottle was not labelled. Dr. Black having mentioned that the organs of the deceased contained no poison, the jury returned a verdict of death from natural causes. A juror mentioned that children ate these lozenges like sweetmeats. The Coroner: Then I don't suppose there is any opium in them, as children are very susceptible to opium poisoning.

Death after Cocaine.

At Marlborough Street Police Court, on January 21, Isidor Zeifert, described as a Russian druggist, of Broad Street, Golden Square, W., was charged with causing the death of Jane Farvish by administering cocaine to her. The police evidence was that the woman went to the prisoner's shop to have some teeth extracted, and she expired after he had injected the cocaine into her gums with the object of lessening the pain. It was believed that the quantity of cocaine used was excessive. A police inspector, who saw the deceased woman in the shop, deposed that prisoner said, "I gave her cocaine. I have done it hundreds of times." In answer to Dr. Dunn, who accompanied the inspector, Zeifert said he had no qualification as a chemist in this country. A hypodermic syringe and a bottle labelled "cocain. hydroch." were taken possession of. Prisoner was remanded on 100*l.* bail.

Irish News.

Local Newspapers containing marked items of news interesting to the Trade are always welcomed by the Editor.

Pharmaceutical Society of Ireland.

The following is the result of the recent examinations: *Pharmaceutical Assistant Examination*.—Robert Alexander Hepple, passed; one candidate was rejected.

Registered Druggist Examination.—Robert Barre, passed; six candidates were rejected.

We have received particulars of the classes to be held during the year in the Pharmaceutical School of Chemistry, from which it is apparent that development is taking place in this department of the Society's activity. A three months' day course begins on April 1, and will comprise the number of lectures required by the examination regulations. A

day-practice course is also to be held during April, May, and June, about which particulars are already available. Students are recommended to write to the Registrar for a copy of the new circular. Book-prizes are offered as the result of class-examinations.

An Irish Shop.

At a meeting of the Cork Industrial Development Association on January 18, a member drew attention to the fact that a pharmaceutical chemist's shop recently opened in Patrick Street, Cork, was a practical example of what can be done to support Irish industries. The whole of its fittings, including nests of drawers in which various drugs are stored, were made in Cork. Every detail in the furnishing of the establishment that could be procured of home manufacture, down to the floor-rug and tiles, was availed of, and the goods on sale were as far as possible in keeping with the furnishing.

Personal.

Mr. P. J. T. Timmon, pharmaceutical chemist, Navan, has been elected Councillor of the Urban District for that town.

Mr. Edward P. Magee, pharmaceutical chemist, Kells, has been elected a member of the Urban District Council of that town.

Mr. Isaac Davison, druggist, Portadown, has been returned at the head of the poll as an Urban District Councillor for that town.

Mr. Samuel Parker Boyd, M.A., managing director of Messrs. Boileau & Boyd, Ltd., chemists and druggists, Mary Street, Dublin, has been elected a Commissioner of the Township of Rathmines.

Dr. Meredith R. Whitla, member of the Council of the Pharmaceutical Society, Monaghan, has been returned at the head of the poll of twenty-one candidates as a member of the Urban District Council for that town.

Mr. T. V. L. Watson, registered druggist, Dromore, has been elected a member of the Dromore Urban Council. There were fourteen candidates for the nine vacant seats, and Mr. Watson obtained fourth place in the poll.

Mr. McMullan has been elected city councillor for Windsor Ward at Belfast. Mr. McMullan scored a very decided victory. He is a member of the firm of Thos. McMullan & Co., wholesale druggists, Victoria Street.

Mr. Josiah R. Middleton, principal of the firm of Messrs. McMaster, Hodgson, & Co., chemists and druggists, Capel Street, Dublin, and Clontarf, has been appointed to the Commission of the Peace for the Borough of Dublin.

Sir Thomas W. Robinson, pharmaceutical chemist, managing director of Messrs. Hayes, Conyngham & Robinson, Ltd., pharmaceutical chemists, Dublin, has been elected a representative of the East Ward of the Kingstown Urban District Council.

Dr. J. C. McWalter, pharmaceutical chemist, proprietor of Leonard's Medical Halls, Dublin, has been elected an Alderman of Dublin Corporation. Alderman McWalter has now but few worlds to conquer. He is mentioned as the next Lord Mayor of Dublin.

Scotch News.

Local Newspapers containing marked items of news interesting to the Trade are always welcomed by the Editor.

Co-operation.

At the quarterly meeting of the Dunfermline Co-operative Society, held last week, it was stated that the drug-department showed the largest increase of any. It amounted to fully 25½ per cent. over the corresponding period of last year.

Glasgow and the West.

Mr. David Watson, chemist and druggist, is opening a branch business near the Cart, Pollokshaws.

Mr. William Cowie, chemist and druggist, of Main Street, Maryhill, Glasgow, is about to retire from business.

The Scottish oil companies have advanced the prices of petroleum and burning-oil for next season's contracts by 4*d.* per gal.

Mr. J. P. Gilmour lectured before the Glasgow Eastern Photographic Association on January 20 on "The Scientific Basis of Photography."

The freedom of the City of Glasgow was on January 21 conferred upon Lord Lister, Lord Blythswood, and Mr. Cameron Corbett, M.P. Lord Lister was unable to be present, but sent an interesting letter of acknowledgment.

The Dundee Separation Case.

Further evidence was heard before Lord Johnston in the Court of Session, on January 15, in the action by Mrs. Jane Walker against her husband, Alexander Calder Walker, chemist and druggist, Hilltown, Dundee, for separation and aliment. Evidence was given by the defender, who is thirty-six years of age, who said he is now an assistant with another chemist in Dundee. He complained of his wife's temper after they were married and her "nagging" disposition. He denied that he ever used strong language or acted violently towards her. He admitted that he had walked along the street with a Mrs. Slater and that she had kissed him under the mistletoe. He sold his business for 450*l.*, and out of that sum repaid 400*l.*, which he had borrowed from his father. Defender's father and Mrs. Slater also gave evidence, after which the case was adjourned.

Edinburgh.

There are now eighteen small-pox cases in Leith. One of the sufferers is Mr. James A. Skinner, chemist and druggist, 151 Great Junction Street.

Mr. G. Victor Wright, chemist and druggist, presided over and addressed the Men's Brotherhood—lately formed in the eastern district—on Sunday, January 19.

Eight firms in business in various parts of the city were fined varying amounts at the J.P. Court, Edinburgh, on January 20, for keeping calcium carbide without a licence, or for non-observance of the regulations with regard to storage.

All claims against the estate of the late Mr. Donald Fraser Macdonald, chemist and druggist, 29 London Road, Edinburgh, should be sent in to Messrs. Donald & Ritchie, 20 Hill Street, Edinburgh, by February 1, and all debts to the estate should be paid before that date.

An unfortunate local chemist was left with a poisoned cat on his premises. The owner promised to call for it, but did not. At dead of night the boy was sent to the backyard to inter the remains. Presently he returned and blurted out, almost in tears, "Mr. —, I'm feared—and the grundy's over teuch."

Lord Guthrie, in the Court of Session, on January 21, had again before him the actions in which Ogston & Tennant, Ltd., soapmakers, Glasgow, sue the "Daily Record," Glasgow, Ltd., and the Associated Newspapers, Ltd., Carmelite House, Carmelite Street, London, for damages in respect of alleged libel, the sum sued for in each case being 25,000*l.* His Lordship approved of six issues for the trial of the action against the "Daily Record," leaving it to the jury to say whether, fairly read, the statements complained of were of and concerning the plaintiffs, but delayed signing the interlocutor until the action against the Associated Newspapers should be brought into line.

Welsh News.

Local Newspapers containing marked items of news interesting to the Trade are always welcomed by the Editor.

A Herbal Professor's Death.

A well-known herbalist named William Banks, locally known as "Professor" Banks, died at Newport a few days ago at the age of seventy-eight. Mr. Banks was a native of Market Drayton, and was so highly respected that in 1895 he was elected a town councillor without canvassing for a single vote. He erected the Forum at Maindee, a suburb of Newport, where the discussions of the local debating society considerably influenced the political life of the town.

Not the Pills.

At an inquiry held at Coleford on January 16 into circumstances of the death of a woman named Elizabeth Ann Morgan, it was stated that the husband, a collier, had been

in the habit of taking Dr. Bodie's "electric life pills" for the purpose, as he put it, of "killing the drink." These pills he had occasionally given to his wife, who, according to Dr. Buchanan, died from ptomaine-poisoning, supervening on advanced stage of consumption. Mr. George Embrey, county analyst, said he found in the stomach of deceased a considerable quantity of ptomaine poisons, such as neurodine and putrescine, sufficient to have caused death. Twelve pills were missing from the last phial bought by the husband, but Mr. Embrey said even if these had been administered to the deceased he did not think they would have caused death. The jury returned a verdict in accordance with the medical evidence.

French News.

(From the "C. & D." Paris Correspondent.)

FRENCH ALCOHOL.—Official returns were issued this week showing that the total French production of all kinds of alcohol for the first three months of the new campaign (1907-8) amounts to 1,268,683 hectolitres, against 1,339,912 hectolitres during the corresponding period of the previous campaign.

ILLEGAL PRACTICE OF PHARMACY.—The Paris representative of an important German manufactory of pharmaceutical products has been prosecuted for illegal practice of pharmacy, and fined 500 fr. (20*l.*) and 100 fr. (4*l.*) damages. He claimed the right to sell, wholesale, pharmaceutical specialties prepared by a duly qualified French pharmacy in Paris with chemicals imported from Germany.

PEARS' SOAP PERSONIFIED.—The ubiquity of modern advertising was well illustrated at a very fashionable fancy-dress ball given by Mme. Hennessy at Dinard (that cosmopolitan Breton resort where the Anglo-American element is especially noticeable). The leading lady guests freely sought ideas in the advertising pages of the French and English press, and Mme. de Broglie figured as Pears' Soap, Mme. Georges de Montesquieu as the Saxoline brand of paraffin, and Mme. Costa de Beauregard as the Banyuls wine, which is largely sold in a medicated form in French pharmacies.

NEW PITIÉ HOSPITAL.—The first of the modern buildings which are to replace the seventeenth-century convents, which at present form the bulk of the Parisian hospitals, is now nearly ready. Part of the old Pitié dated from 1612, but the greater part was built at the time of the Revolution (1792-1802). The first training-school for hospital nurses was established there in 1830, and the decrepit old building can boast a long and glorious list of medical and pharmaceutical "internes," some of the leading men in modern French pharmacy having spent the brightest years of their youth in the shed-like "Pharmacie" as internes.

ARTIFICIAL DIAMONDS.—The magistrate, M. le Poittevin, who is investigating the charge of fraud against M. H. Lemoine, the French chemist, connected with the production of artificial diamonds, has appointed three scientific experts to examine the stones claimed to have been made by the defendant. These experts are MM. Kling, Pinier, and Dr. Bordas, and they are to make a series of analyses of the stones claimed to have been produced by the electric furnace. Meanwhile the case continues to arouse unabated interest in Paris, and is a topic of general conversation, Lemoine having a good number of sympathisers and supporters, in spite of the fact that he is in prison on a charge of fraud.

THE LEGION OF HONOUR.—M. Gigon, one of the new officers of the Legion of Honour, is proprietor of a well-known Parisian pharmaceutical establishment which (besides a large French trade) exports its specialties to Germany, Greece, and Russia, and even to Brazil, Mexico, and the Argentine Republic. He is sixty years of age, has been thirty-five years in the profession, has served on the juries at several international exhibitions (including that of 1900), is a member of the Council for French Export Trade (Conseil du Commerce Extérieur), and Deputy Mayor of the First Arrondissement of Paris. In the last-named capacity he officiated at the civil marriage of M. Camille Pelletan, then Minister of Marine, and is believed to be

the only pharmacist who can boast of having tied the nuptial knot of a Minister of State.

METCHNIKOFF'S POMADE.—Professor Elie Metchnikoff, of the Pasteur Institute, Paris, is prosecuting a Paris pharmacist for selling a calomel ointment as a prophylactic against the "Avarie" under the Professor's name, or rather as being made according to his formula. M. Metchnikoff's contention is (1) that his name cannot be used in business circulars without his permission, and (2) that the mercurial ointment of which he has given details at a meeting of the Paris Academy of Medicine (see *C. & D.* May 19, 1906, p. 750) is a product which is still in the experimental stage, and consequently does not constitute a remedy of absolute security. The defence of the pharmacist is that Prof. Metchnikoff, having made a public announcement of his discovery, with details of the formula, he has the right to indicate as much in connection with a pomade made in conformity with such a formula. Judgment has been deferred for a few days, and meanwhile it may be mentioned that the professor merely claims nominal damages, his principle object being to have his name disconnected from a commercial enterprise of which he disapproves.

Australasian News.

The fullest information regarding the Australasian drug-trade and pharmacy is given in "The Chemist and Druggist of Australasia," copies of which can be obtained at 6d. each, post free, from the office of "The Chemist and Druggist," 42 Cannon Street, London, E.C.

New South Wales.

PROPRIETARY MEDICINES.—Messrs. Steedman & Co., London, wrote to the "Sydney Morning Herald" of December 12 a letter pointing out that they and most proprietors would refuse to publish to the world their trade secrets. In other countries it has been found effectual to compel the manufacturer to state on the container that the medicine contains a poison. The "Sydney Morning Herald" suggests that there should be a readiness to consider the matter from other points of view than Mr. Beale's drastic and ill-balanced report. The main purpose of the Pure Food Bill before the New South Wales Parliament was to prevent adulterations of any kind and to protect the public from the sale of articles unfit or unsuitable for consumption.

Queensland.

PROPRIETARY MEDICINES.—Referring to the official report of the Commissioner of Public Health of Queensland (*C. & D.*, January 11, p. 43), wherein some space is devoted to "Quackery and Sale of Patent Medicines," Dr. Ham states that a Bill has been drafted for the better control and supervision of the sale of dangerous drugs and medicaments. This is probably founded on the provisions of the New Zealand Quackery Prevention Bill.

PLAGUE REPORT.—A report on the epidemics of plague in Queensland, from February 1900 to June 1907, has been prepared by Dr. B. Burnett Ham, and published as a Government paper of 170 pages, with a number of illustrations and maps. In addition to a minute description of the several epidemics, the evidence is carefully worked out and leads to the conclusion that plague is conveyed from rat to rat and from rats to human beings by the bites of the rat flea and other fleas infesting those animals. The destruction of rats thus becomes an important phase of the fight against plague. Phosphorus in a basis of glucose syrup and flour is stated to be giving the best results as a rat poison. The mixture is made more attractive by the addition of a little rhodium or aniseed oil, and is then spread on thin small pieces of bread. The virus *azoo* has also been tested.

Tasmania.

PROPRIETARY MEDICINES.—The "Launceston Examiner" (November 25), referring to the proposal to compel the placing of the formula of proprietary medicines on the label, suggests that a preferable plan would be to make a schedule of deleterious drugs the use of which should not be permitted, or only to a limited extent, and that manufacturers should make a sworn declaration that their goods do not contain the scheduled drugs, or any ingredient in excess of the quantity allowed by the regulations.

American Notes.

(From the "C. & D." Correspondent.)

THE CASWELL-MASSEY CHAIN of seven drug-stores in New York City are now offered for sale. The company went bankrupt a month or two ago, as was stated at the time. Perhaps Mr. Boot would be glad to know about this opportunity, and to reach across sea and establish an American branch!

A NEGRO PHARMACIST.—At a recent State examination by the Board of Pharmacy of West Virginia the highest record made by any one of the candidates (95½ per cent.) was achieved by a negro. In the Southern States negro pharmacists are quite frequently met with, and there are two or three colleges of pharmacy devoted to their education.

THE CONFUSION OF STANDARDS which results in this country from different boards of pharmacy in every State, has led of late years to efforts looking toward reciprocity. Recently the five boards of pharmacy of the New England States formed an organisation and decided to exchange certificates with each other under certain restrictions. A National Association of Boards was created three or four years ago for achieving the same purpose on a larger scale.

THE VARIOUS CHAPTERS throughout the country of the women's organisation of the National Association of Retail Druggists has been quite active this winter. In Brooklyn the women have solicited funds for carrying on the N.F. and U.S.P. propaganda, and in Philadelphia they have obtained money for helping the Philadelphia College of Pharmacy to build its food and drug laboratory, where young men are to be trained to fill the posts of Government chemists.

THE FAMOUS INDIANAPOLIS DECREE, which put a stop to the price-restrictive plans of the N.A.R.D. so far as these plans were national in scope, has apparently not restricted the activities of the local associations operating within State limits, and, therefore, not coming in contact with federal enactments. In the city of Buffalo, for instance, the druggists recently adopted a schedule increasing the prices of a number of patent medicines, and the same thing was also done in Pittsburg.

POPULARISING OFFICIAL REMEDIES.—The movement to popularise the U.S.P. and N.F. products in this country is proceeding apace. Preparations are being made for a monster meeting in New York City of the pharmacists and physicians. An attendance of at least a thousand is expected. In Chicago a big dollar dinner is being planned, and the members of the Chicago Medical Society have been invited to attend as guests *en masse*. At such gatherings, of course, the use of official preparations is discussed from every standpoint, and efforts are made to win over the doctors from prescribing secret products.

Canadian News.

(From the "C. & D." Correspondent.)

AT A MEETING of the Canadian Section of the Society of Chemical Industry on January 3, at Montreal, an excellent paper entitled "Chemistry: Its Value in Modern Foundry Practice," written conjointly by Mr. Milton L. Hersey, Provincial Government Analyst, and Mr. Ira B. Lesh, consulting foundry expert, Chicago, was read.

TROUBLE.—Chive's drug-store, 453 East Notre Dame Street, Montreal, owned by Desilets & Son, has been on fire twice within the past month, but on both occasions the blaze was extinguished before serious damage was done. —A tank-car filled with acid belonging to the Nicolas Chemical Co. exploded at Capelton Station a few days ago. The car was wrecked and some damage done to adjoining property, but no loss of life occurred.

BUSINESS CHANGES.—After being in the drug-business for thirty-six years, Mr. John Lewis, of Montreal, has sold out to Mr. J. M. Cavanagh, who has been in Mr. Lewis' employ for fifteen years. Mr. Lewis had a store in Victoria

square for twenty-four years.—Mr. Edward Sandreuter having retired from the firm of Sandreuter & Waters, chemists, 410 Coristine Building, Montreal, the business will be carried on in future by Mr. George Waters alone, under the style of George Waters & Co.

FIVE YEARS FOR MEDICINE.—The medical faculty of Queen's University, Kingston, Ontario, has adopted the five-year course for the degree of doctor of medicine to apply to students entering upon their medical studies in September next and thereafter. The regulations of the Ontario Medical Council will apply to the University course. These permit of three options for the fifth year. The examinations will be practical and clinical. The faculty has arranged a diploma post-graduate course in public health and sanitary science, and it has also established a higher degree of doctor of science which will be available for medical graduates for original research work.

NEW CHEMICAL-WORKS.

WHEN Mr. T. H. Wardleworth, F.L.S., of the National Drug & Chemical Co. of Canada, Ltd., was over here last summer he informed us that his company had acquired a building to use as a factory for the production of chemicals. This is the



MR. G. PONTHEU.

Hubert Lacroix house, one of the most interesting relics of old Montreal. It was built in 1680 by Hubert Lacroix, the wealthiest French merchant of his time, and it is as solid and substantial to-day as it was two centuries ago. It is situated in St. Jean Baptiste Street, and is under the supervision of Mr. Georges Ponthieu, F.C.S. It has been well equipped with apparatus for the production of pharmaceutical chemicals. Attention is for the present being confined to the more important articles, such as iodides and iodoform, bismuth salts, benzoates, bromides, citrates, and valerianates. Gold and silver salts are also produced, and any fine chemical which may be required at short notice. Mr. Ponthieu, the superintendent of the laboratories, began his career a dozen years ago with Messrs. Burgoyne, Burdidges & Co., London, and is known to many pharmacists here as well as in France.



THE HUBERT LACROIX HOUSE.

He has been a Fellow of the Chemical Society since 1899. The "Canadian Druggist," writing of the works now under his charge, says: "This model chemical-factory exhibits a remarkable cleanliness and order, and its operations are evidently conducted most systematically, all being additional guarantees to the professions and public. Regulations are posted on the walls, vermilion-painted pails and fire-hose are everywhere ready in case of emergency."

"Why does the proposed spirit monopoly in Germany cause such interest in England?" asks a German subscriber. "One hears really very little about it in Germany, and that is accepted with apathy. The German has to pay! pay! pay! for his world-power, but how, he does not care. 'Kismet,' he exclaims . . . and sighs." [Shows the C. & D. is ahead.—ED.]

South African News.

(From the "C. & D." Correspondents.)

Note.—"The Chemist and Druggist" is regularly supplied by order to all the members of all the Pharmaceutical Societies in British South Africa, viz.:

South African Pharmaceutical Association.
Pharmaceutical Society of Cape Colony.
Natal Pharmaceutical Society.
Transvaal Pharmaceutical Society.
Rhodesia Pharmaceutical Society.
Northern District Chemists' Association.
Pharmaceutical Society of Orange River Colony.

Cape Colony.

A TRAVELLING EXHIBITION of commercial products, machinery, etc., is being organised by Mr. W. M. Gillard, of 2 Breains Buildings, London, E.C. The idea is to stimulate trade in the Colonies, and the headquarters for South Africa are in Cape Town. The principal towns in South Africa will be visited in rotation, the largest hall obtainable will be taken and filled with the machines, appliances, etc., of the exhibitors. Entertainments are to be provided. Among those who are showing at these exhibitions we note the Ozobrome Co., C. J. Hood & Co. (Hood's sarsaparilla), Homoece, Ltd., McKesson & Robbins (Calox), Van Oppen, Ross & Co. (No. 54 Eau de Cologne), Harrison (wholesale chemists, Reading), Bromo-Seltzer Co., Kelpion, Ltd., "No More Rat" Extinguisher, and the Oatine Co.

Transvaal.

THE PRESIDENCY OF THE PHARMACY BOARD.—It is understood that Mr. J. H. Dinwoodie, President of the Pharmacy Board, who was recently re-elected at the top of the poll for the years 1908-10, will not consent to resume the presidency. It is anticipated that Mr. B. Owen Jones will be asked to fill the position, and there is a general hope that Mr. Jones will be able to accept.

TRANSVAAL PHARMACY BOARD.—The last sitting of the first Transvaal Pharmacy Board was held on December 20, 1907, at Johannesburg, under the presidency of Mr. J. H. Dinwoodie, the others present being Dr. J. van Niekerk, and Messrs. B. Owen Jones, M.L.A., R. Butters, J. R. Jones, and Charles Keir, and the Secretary. The major portion of the sitting was occupied with the consideration of a report as to the portions of the Medical, Dental, and Pharmacy Ordinance which, in the opinion of the Board, required amendment. This report, after discussion and amendment, it was decided to forward to the Government as the recommendations of the Board. The Secretary reported the receipt of a letter conveying to the members of the Board the thanks of the Colonial Secretary for the services rendered by them, and for the valuable assistance and advice they had so readily tendered whenever the Government had occasion to consult them. Certain applications for permits to import opium, recommended during the preceding month, were confirmed, and an application for admission to practise as a chemist and druggist received from Mr. Maurice Beiles was approved. At the conclusion of the ordinary business the President briefly reviewed the work done by the Board during the past three years, and expressed his thanks to the members for the cordial support they had extended to him during that period. A vote of thanks was then recorded for the services rendered by Mr. Dinwoodie during his term of office as president.

ADVANTAGES.—Two message-boys were discussing the respective merits of their situations. "I've six shillings a week, now," said one. "How much have you got?" "Five bob!" answered the other. "But I've less measures to wash than you, an' I get to take the boss's dog out."

A SAD WARNING.

A young man whose anguish a sight is,
Suffers badly from chronic neuritis;
And the cause of the pain,
In his once active brain,
Is the blithering limerick-itis.

So Mr. A. J. Hunt, dispensing and photographic chemist, 5 Woolwich Road, East Greenwich, has it on a postcard.

Japanese Gottings.

(From the "C. & D." Correspondent.)

MR. TAKUCHI, military pharmacist, who distinguished himself during the late war, has opened a factory for the manufacture of tablets, under the style of the Oriental Tablet-factory.

A PHARMACEUTICAL POLICEMAN.—Mr. H. Takahashi, a Japanese pharmacist, has recently been appointed chief of the police station, Ishikawa Prefecture. This is the first case on record in Japan of a pharmacist becoming a police-officer. Indeed, we know no analogous case in this or any other country.

ADVERTISING PROPAGANDA in China by Japanese patent-medicine vendors is proceeding apace. Circulars are being distributed broadcast, and posters are to be seen everywhere advertising the specialities of Japanese proprietors. The To-a-ko-shi (the Oriental Co.) are particularly active in this way.

EXAMINATIONS AND REGISTRATIONS.—At the last examination for the pharmaceutical qualification in Japan, out of 790 candidates only 113 passed. The latest registrations include five pharmacists, among them Mr. Joseph Fremon, an English chemist. On December 10, 1907, diplomas were granted to nine graduates of the Kyoto Medical School.—A college of pharmacy has been opened by Kyoto druggists for the education of apprentices.

MILITARY SANITATION.—Pharmacist-Colonel M. Hirayama, Pharmacist-Captain K. Makiyama, and Pharmacist-Sub-Lieutenant R. Inaba have been commissioned by the Military Technical Examination Department. They are to inquire into the poisonous gases arising from operations with explosives, etc., by engineers in the Army. A War Office notification gazetted on December 2, 1907, promulgated regulations for the control of sanitary materials.

MEETINGS.—At a meeting of the Japan Pharmaceutical Association on December 14, 1907, in the lecture hall of the Tokyo University, the papers included one on "Purity in Milk" by Mr. S. Furuta, a dissertation on "Japanese Cantharidin" by Mr. R. Neda, and a note by Mr. K. Tamba on "Results in the Practice of Pharmaceutical Chemistry."—The annual meeting of the directors of the Hygienic Laboratory of Japan was held at Tokyo from December 15 to December 20, 1907.

REGULATIONS REVISION.—A revision of the table attached to the existing Pharmaceutical Regulations is suggested among the authorities concerned and will shortly become a practical question for the Pharmacopoeia Investigation Commission. The enumeration of poisonous and potent medicines in the table is not well defined. For instance, while corrosive sublimate is among poisonous medicines and calomel among potent medicines, "mercurial compound" is among poisonous medicines. Heavy chemicals are also enumerated in the table, which is to deal with refined chemicals. There are also not a few incomplete points in the table, hence the revision suggested.

Festivities.

A Manchester Social.

THE employees of Messrs. Cussons, Sons & Co., manufacturing chemists, Manchester, were entertained to tea by the firm in a large schoolroom adjoining the Lilley Street works on January 11. Over 200 were present. The firm was represented by Mr. J. T. Cussons, sen., Mr. J. W. Cussons, and Mr. A. J. Cussons. A most enjoyable evening was spent.

Dining at Peterborough.

THE annual dinner of the Peterborough and District Chemists' Association was held at the Grand Hotel, on January 16, with the President (Mr. F. W. Whitwell) in the chair. Among those present were Mr. J. Rymer Young, J.P. (President of the Pharmaceutical Society of Great Britain), Sir Robert Purvis, the Mayor (Councillor T. I. Slater), Messrs. E. Saville Peck, John Humphrey,

W. Elborne, M.A., E. R. Herbert, W. H. Sturton, J. W. Hall (Hon. Secretary), J. G. Sturton, F. A. Sturton, Fred. Sturton, C. Bayley, J. S. Prior, W. R. Gurling, T. M. Baxter, Turner (St. Ives), J. E. Saunders, J. T. Calcutt, H. E. Noble, J. Gann, Ecob, J. Milbourn, Long, and R. Lugg. "The Pharmaceutical Society" was proposed by Mr. J. S. Prior, of Stamford, who viewed with alarm any Poisons Bill on similar lines to that introduced last Session. He also thought the Pharmaceutical Council should get in touch with the Medical Council and see what could be done to discourage medical men from selling drugs. In his reply, Mr. Rymer Young spoke on organisation, examination, and education, the last comprising the necessity for a compulsory curriculum. With regard to legislation, Mr. Young said they did not seem to be getting much "for-rader" with one Government after another. The directors' clause would have to go, for the system of co-operation on the limited liability company principle had invaded every domain of civilised life. All the judges were members of some store or other, and what chance had they when they appeal to Cæsar and found Cæsar a member of some co-operative store? There would be a Bill shortly before the Council; he was not quite prepared to disclose what its terms were, but he would not be divulging secrets when he said that probably they would see the directors' clause deleted; certainly they would see the clause retained which had for its object the enabling of the Pharmaceutical Council to establish a curriculum and division of the examination; and an endeavour made to maintain as far as possible the title and the clause intended to simplify the present somewhat clumsy form of registration. Mr. John Humphrey proposed "The Peterborough Association." The Mayor, replying to the toast of "The City and Trade of Peterborough," proposed by Sir Robert Purvis, said he would be glad to make a donation of a guinea to the Benevolent Fund. Mr. W. R. Gurling proposed "Kindred Associations," Mr. E. Saville Peck responding; and "The Visitors" were toasted by Mr. W. H. Sturton. There was a capital programme of music.

Whist.

A SUCCESSFUL whist-drive and social took place at the rooms of Mr. Hargreaves, Railway Road, Darwen, on January 16, in connection with the North-East Lancashire Chemists' Association. Alderman R. Shorrocks, J.P., was unable to attend owing to indisposition, and Mr. W. H. Lomax therefore presided over a gathering of sixty ladies and gentlemen. There were fourteen whist-tables, and after an interesting and exciting series of games, the following proved the winners: Ladies (1) Miss Yates (Blackburn), (2) Mrs. E. Raine (Darwen); Gentlemen (1) Mr. W. Holt (Blackburn), (2) Mr. Grimshaw (Darwen). There were two consolation prizes, and both fell to the Darwen party, being awarded to Mrs. Lomax and Mr. J. W. Jepson.

The second annual whist-drive in connection with the Grimsby and District Chemists' and Druggists' Association took place on January 16 at the Town Hall, Grimsby, and proved a great success. Among those present were the Mayor (Alderman T. G. Tickler), Mr. Cor. Willson (President), and most of the executive. The drive, which took place in the banqueting-room, specially decorated for the occasion, was participated in by upwards of 100 people, the arrangements being in the hands of Messrs. J. A. Hawdon (Vice-President), C. Dewing, C. H. Ashton Ingamells, C. N. Chapman, E. Eyley, and F. W. Heely (Hon. Secretary). Upon the conclusion of the tourney the Mayoress presented the sixteen handsome prizes, being:—Ladies: (1) Miss Clara Briggs, (2) Mrs. D. Simpson, (3) Mrs. Holmes, (4) Miss Willson, (5) Miss E. Oliver, (6) Mrs. Hurst, (7) Mrs. Atkinson, (8) Mrs. Brocklesby. Gentlemen: (1) Mr. E. Rogers, (2) Mr. W. M. Harrison, (3) Miss D. Spring, (4) Mr. C. Dewing, (5) Miss Pinder, (6) (7) Mr. Humphrey and Mr. F. W. Voisey, and (8) Mr. G. B. Trafford.

DELETERIOUS DRUGS ORDINANCE.—This S.S. Ordinance, about which full particulars were given in THE CHEMIST AND DRUGGIST of August 10, 1907 (p. 243), has been passed. The Ordinance supersedes the Morphine Ordinance hitherto in force in the Straits Settlements.

Legal Reports.

High Court Cases.

IMPORTING SACCHARIN.

In the Court of Appeal on January 20, Lords Justices Vaughan Williams, Farwell, and Kennedy had before them the case of the Saccharin Corporation, Ltd., v. Dixon, which was an appeal by the defendant from an order of Mr. Justice Parker in chambers.—Mr. Ernest Williams, who appeared for the appellant, said the plaintiffs brought the action against Dixon for alleged infringement of a patent by importing saccharin from abroad. The point in the present appeal was whether an interrogatory should be administered to the defendant asking him to state who the manufacturer of the saccharin was.—Mr. Colefax, for the Saccharin Corporation, said he objected to the present application, first, because the notice of appeal was out of time; second, because no leave to appeal had been granted; and third, because the point his learned friend was referring to was not that raised by the notice of appeal.

Lord Justice Vaughan Williams: Have you any further objections? (Laughter.)

Mr. Williams submitted that the appeal was not out of time.

Mr. Colefax said the order was made on December 2, but notice of appeal was dated December 21.

Lord Justice Vaughan Williams: I think the defendant had better answer the interrogatory. This is quite a hopeless appeal.

The appeal was accordingly dismissed with costs.

THE TUCKER LIBEL ACTION.

The hearing of the action by Mr. Augustus Quackenbush Tucker against Mr. Walkley, proprietor of the "Lancet," for an alleged libel against him in respect to Tucker's asthma specific was concluded before Mr. Justice Ridley and a special jury on Monday, January 20, when his Lordship left the three following questions to the jury to answer, and they gave the replies appended:

Did the defendants attack the plaintiff's personal character?—Yes.

Was the article a fair comment on a matter of public interest?—No.

What were the damages, if any?—1,000*l.*

The libel complained of appeared in the "Lancet," in January 1907, and was as follows:

QUACK ADVERTISEMENTS.

In the course of an inquest held at the beginning of the year it was stated that a labourer who had died from consumption had been using Dr. Tucker's asthma-inhaler, for which he had given, according to a newspaper report which has reached us, three guineas, while the material with which he had sprayed himself costs 8*s.* an oz. Dr. F. J. Waldo, the Coroner, rightly stigmatised this kind of dealing as a fraud, and it is a humiliating thing for journalists to remember that such frauds could not be committed with any profit to the quack save with the co-operation of the Press. A correspondent has recently sent us a collection of advertisements of so-called proprietary medicines which he had cut from papers of high reputation in the country, inviting our opinion of them. Our opinion is that the misery wrought by quacks must be unknown to a good many proprietors of newspapers, or they would hardly share with the quacks the plunder extracted from the public, mainly from the sick poor. The remedy is in the hands of the public, who have only to signify their displeasure at reading in their journals invitations to be robbed and poisoned and find those invitations immediately cease. But the public are largely uninstructed and credulous, and, alas! those responsible for the conduct of many of our journals take no trouble to enlighten them. They prefer to regard all protests against quack advertisement as emanating from the narrowness of the medical profession; this is certainly a convenient faith, but how it can be truly held by educated people passes our comprehension.

The report of the proceedings in our issue of January 18 concluded with the hearing on Thursday, January 16, when witnesses were examined for the defence. Dr. William H. Wilcox, F.I.C., B.Sc.Lond., analyst to the Home Office, was the last witness heard that day. He stated that he analysed a bottle of the plaintiff's specific, and found it to contain 2.23 gr. of cocaine, 0.87 gr. of

atropine, 15.25 gr. of sodium nitrite, 20 to 30 per cent. of glycerin, and a trace of balsam or benzoin. In cross-examination, Mr. Duke, K.C., asked witness if he knew the specific for asthma prepared by Messrs. Oppenheimer, Son & Co., Ltd., and witness, in reply, stated that this was said to consist of atropine, cocaine, a solution of hyponitrous acid, and balsamic extracts, and Oppenheimer's price for it to medical men was 3*s.* 6*d.* per oz. Witness was also examined as to the physiological and therapeutical action of such compounds as these, and declared that cocaine is a dangerous poison.

The hearing was continued on Friday, January 17, when the first witness was Mr. Herbert Tilley, F.R.C.S. He stated that he was familiar with the use of Tucker's specific, and was of opinion that it was not possible to cure asthma with it, while he considered that it would tend to create the cocaine habit. In cross-examination, he stated that he could bring many patients who had been compelled to give up the specific because they had found it injurious. Dr. Waldo, coroner for the City of London and Southwark, was examined in regard to his inquest on the man Cushing (reported in the *C. & D.*, January 5, 1907), when he described the specific as a quack medicine, and added, "it is a fraud." In cross-examination by Mr. Duke, Dr. Waldo admitted that he had caused a newspaper report to be sent to the "Lancet," and had for the purpose of the present case supplied papers and information. Sir Douglas Powell, Sir Lauder Brunton, Mr. H. A. Francis, M.B., and Professor A. J. Pepper, F.R.C.S., also gave evidence for the defendant on the medical aspects of asthma, and the use of such a compound as Tucker's specific in treating it. All agreed that it would not cure in the sense of eradicating the disease, but admitted that it would relieve the distressing symptoms. Mr. S. A. Vasey, F.I.C., F.C.S., consulting analyst to the "Lancet," gave in evidence analyses of the specific. In one sample he found 1.03 gr. of cocaine, 0.52 gr. of atropine, and 16 gr. of sodium nitrite. In another there were 1.47 gr. of cocaine, 0.66 gr. of atropine, and 24.46 gr. of sodium nitrite.

When the case was resumed on Monday, January 21, Mr. Eldon Bankes, K.C., counsel for the defendants, called Mr. John A. Barrett, barrister-at-law and a member of the New York Bar, to give evidence of the Massachusetts law with regard to the sale of cocaine. Mr. Duke objected to the evidence as being irrelevant, and the objection was upheld, when Mr. Bankes explained that his object was to show that the indiscriminate sale of cocaine is dangerous, and therefore he submitted that the evidence was relevant. Mr. Justice Ridley, however, said he did not think it could be of assistance. Mr. Bankes then intimated that his case was concluded, and he proceeded to address the jury for the defendant on the whole case. In the course of his remarks Mr. Bankes referred to the sale of a preparation of this nature, which he alleged was done contrary to the provisions of the Pharmacy Act, and therefore it was a public danger. He was followed by Mr. Duke on behalf of the plaintiff. Mr. Justice Ridley, in the course of his summing up, put to the jury the three questions which we have already quoted, and in the course of his remarks stated:

In fair criticism it is necessary to consider a summary of the facts on one side and the other. There was not one word in the libel to suggest that any single human being had benefited by the use of the specific. Was it a fair thing to do to leave out the good side and put in the bad? While it was only suggested in Court that two persons were the worse for the drug, they had also been told that many people had benefited from it. It was no answer to say that the writer did not know these facts, because he ought to have known them. A number of persons had said they got relief from this drug when everything else was ineffectual. None of them had experienced any evil effects. There were also 143 testimonials from the three kingdoms which had been printed in the plaintiff's pamphlet-book. It had also been said that the price was exorbitant. With regard to that, it was noticeable that some of the witnesses were glad to pay for the inhaler and the specific. The 3*l.* was charged not only for the inhaler, but for some ounces of the specific, and the treatment had also to be considered in the price. As to the statement that the plaintiff wrote that his specific was a cure when it was not, they ought to remember that when the plaintiff went into the box he said the specific did not cure

the liability to asthma. It merely gave relief, and in that sense it effected a cure.

When the decision of the jury was announced, Mr. Hugh Fraser, for the defendant, applied for a stay of execution; and Mr. F. E. Smith, for the plaintiff, did not oppose; whereupon Mr. Justice Ridley granted the stay on the usual terms.

We extract the following from the "Times" of January 17:

On taking his seat, Mr. Justice Ridley said that he was reported in the "Times" of to-day to have said that "Fellows' Syrup of Hypophosphates" was marked as a poison. He desired to say that that was not what he said. He merely wanted to point out that a purchaser of the syrup was required to sign the book. He made this statement lest his remarks should appear to be derogatory of a well-known proprietary article. If people reported at all they ought to be accurate.

In justification of our reporter, we may mention that the transcript of the shorthand note of what the learned Judge said during the cross-examination of Mr. Bateson says: "There has been a development about this lately. There is a sort of remedy known as Fellows' Syrup of Hypophosphates; that contains poisons, and I discovered the other day that they have found it necessary to mark it as poisonous, and you have to sign the book; but it certainly was not done two or three years ago. It is a perfectly well-known article, and has been on the market for years and years." In view of this corroboration of our report, the Judge's strictures appear to be undeserved.

FELS NAPHTHA SOAP.

In the King's Bench Division on January 22, before Mr. Justice Bigham, an action was brought by Messrs. Sales & Co., Ltd., against Messrs. Claydon & Co. for damages for wrongful conversion of a parcel of Fels Naptha Soap. The facts were undisputed, and judgment was given for defendants with costs, plaintiffs to have costs up to the time of payment into court by defendants of damages at the rate of 18s. 6d. per box.

Merchandise-marks Act.

SODA-CRYSTALS.

At Ipswich Police Court on January 16, Joseph Cooper Squirrel, grocer, was charged under two summonses for applying false trade-description to goods and two summonses for selling goods to which a false trade-description was applied. The prosecutors were Messrs. Brunner, Mond & Co., Ltd., of Warrington, Northwich (for whom Mr. B. M. Kerly, barrister, appeared), and the evidence was to the effect that defendant had supplied as "soda-crystals" a mixture of carbonate of soda and Glauber's salt to the Ipswich Board of Guardians. Evidence in support of the charge was given by the Master of the Ipswich workhouse, who said defendant had the contract for "soda-crystals," and the stuff sent was so labelled, but Brunner-Mond's label was not on the bag. The Chairman of the Guardians and a member of the Board also gave evidence. Samples of the crystals supplied were taken by representatives of the prosecutors, and Dr. Lamb said that his analysis showed 24 per cent. of Glauber's salt. Mr. Thomas Tyrer, of Stratford, deposed to analysing a bag and a bottle of soda sent to him by the prosecutors. In the bag there was 24 per cent. of Glauber's salt, and in the bottle 42 per cent. The defence was that it was not understood that Brunner, Mond's crystals were specified in the contract. Defendant ordered "soda-crystals" from the District Chemical Co., and it was the consignment from them that he delivered at the workhouse. The Bench convicted, and defendant was fined 5*l.*, and 5*l.* 5*s.* costs.

Sale of Food and Drugs Acts.

LEAD IN CREAM OF TARTAR.

At Dumbarton on January 20, before Sheriff Blair, William Low & Co., grocers, were charged at the instance of the sanitary inspector with selling cream of tartar which contained lead equivalent to about $\frac{1}{15}$ grain per lb. The solicitor for the defendants at the outset took strong objection to the relevancy of the complaint, in so far that no penalty was provided by the British Pharmacopoeia which was put forward as the standard of purity. He also objected to the analyst's certificate, holding that the Phar-

macopoeia was not the standard for cream of tartar, it being sold by the defendants as an article of food. The prosecuting solicitor contended that they had asked for an article of a certain nature, substance, and quality, and had not got it. The Sheriff repelled the objections, but allowed respondents to argue as to whether there was a difference between the commercial standard and that of the Pharmacopoeia, and as to whether such firms as William Low & Co. were bound by the Pharmacopoeia. Evidence was led at great length, it being proved by expert opinion that the standard of purity— $\frac{1}{7}$ grain per lb.—mentioned in the Local Government report, was not binding. For the defence it was also proved that the respondents had ordered and received from importers in Leith 98.99 per cent. cream of tartar. Ultimately the Sheriff found the charge not proven. A parallel case against the Lennox Co-operative Society was also mentioned, and both were dismissed. The alleged adulteration in the second case was $\frac{1}{10}$ grain per lb.

County Court Case.

COSTS FOR NON-APPEARANCE.

At the January sitting of the Ramsgate County Court, before Judge Shortt, a man named Searles applied for a special order as to costs in connection with a claim against him for 6*s.* by a Birmingham trader named Gould, who advertised a rheumatic cure. The case had been struck out owing to the non-appearance of Gould, and the applicant stated that when he sent to the plaintiff for particulars of the "cure," he received a box of pills and a bill for 5*s.* He refused to pay, whereupon Gould summoned him for 6*s.* The Judge certified for costs for defendant on the highest possible scale.

Bankruptcy Report.

Re JAMES EDWARD JOHNSON JOHNSON, Crown Works, Marsh Gate Lane, Stratford, Chemical-manufacturer.—This case came before Mr. Registrar Hope on January 16 at the London Bankruptcy Court in relation to the public examination of the debtor, but upon the application of Mr. G. W. Chapman, Official Receiver, who required further time for investigation purposes, the sitting was adjourned for a fortnight. A statement of affairs has been lodged by the debtor, showing total liabilities 6,131*l.* 4*s.* 8*d.*, of which 3,854*l.* 16*s.* 8*d.* is expected to rank against net assets valued at 510*l.* 4*s.* 11*d.* Appended is a list of the principal creditors: Unsecured—Attwood & Co., Farringdon Road, E.C. (24*l.*); Boake, Roberts & Co., Stratford, E. (29*l.* 15*s.*); F. W. Berk & Co., Fenchurch Street, E.C. (67*l.* 13*s.* 9*d.*); R. W. Greeff & Co., Eastcheap (42*l.* 5*s.* 8*d.*); Grout & Co., Ltd., Burton-on-Trent (18*l.* 1*s.* 8*d.*); W. G. Harris, Stratford, E. (212*l.*); Higginbottom & Co., Manchester (51*l.* 6*s.* 8*d.*); Hemingway & Co., Stratford, E. (25*l.* 7*s.*); Hunter & English, Bow, E. (22*l.* 6*s.* 8*d.*); Jessop & Co., Leadenhall Street, E.C. (54*l.* 14*s.* 4*d.*); J. Hartshorn, Bow Common Lane, E. (14*l.* 14*s.*); Sparks, White & Co., John Street, E.C. (17*l.* 13*s.* 11*d.*); C. Sayers, Ropery Street, E. (14*l.* 14*s.*); J. Maw & Son, Stratford, E. (11*l.* 1*s.*); E. Saunders & Son, Little Sutton Street, E.C. (64*l.* 12*s.*); C. Windschugel & Co., Leadenhall Street, E.C. (13*l.* 5*s.*); H. Y. Young, West Ham, E. (83*l.* 4*s.*); T. Paulding & Co., Manchester (17*l.* 4*s.*). Fully secured—Scottish Life Assurance Co., Ltd., Edinburgh (762*l.*). Partly secured—Gillespie Bros. & Co., Crutched Friars, E.C. (613*l.* 14*s.* 10*d.*) (estimated value of security 200*l.*); London Trading Bank, Ltd., Coleman Street, E.C. (158*l.*); Tower Hamlets, 170th Starr Bowkett Building Society, Mile End, E. (550*l.*) (the securities of the two last-mentioned creditors being valued at 500*l.*); Herbert Prie, Upper Norwood, S.E. (1,900*l.*) (security valued at 83*l.*); Reitmeyer & Co., Crutched Friars, E.C. (500*l.*); A. Johnson, Crutched Friars, E.C. (234*l.*) (estimated value of security 175*l.*). Preferential: Hunter & Haynes, London (75*l.*); Wm. Ling, Forest Gate, E. (200*l.*).

Gazette.

Partnerships Dissolved.

COX, A. E., and BARKER, J. C., Watford, Herts, medical practitioners, under the style of Hles, Cox & Barker.
LYON, T., and LYON, J., aerated-water manufacturers, Prescott, Lancs, under the style of Thomas Lyon & Son.
SMITH, A. W., and SMITH, E., Pershore, Wore., mineral-water manufacturers, under the style of A. W. Smith & Co.
THOMAS, P. J., NAYLOR, F. R., and CHAMBERS, E. V., Huddersfield, specialists in polishes, under the style of the Ladma Chemical Co.; so far as regards P. J. Thomas.

New Companies and Company News

NEWCASTLE BENZOL CO., LTD.—Capital 10,000*l.*, in 1*l.* shares. Objects: To adopt an agreement with the Priestman Collieries, Ltd., and carry on businesses as manufacturers of benzol, alcohol, etc. The first directors are F. Priestman, H. Peile, and S. J. Leybourne. Qualification, 500*l.*. Remuneration as fixed by the company.

BORAX PROPERTIES, LTD.—Capital 10*l.*, in 1*l.* shares. Objects: To carry on the business of producers of and dealers in borax in all its combinations. The first subscribers are: E. A. Leadham, solicitor; C. Moir, merchant; G. Griggs, clerk (all of 28 Austin Friars, E.C.); S. S. McNicol, engineer; C. N. Nixon, clerk; E. E. Warren, clerk; and A. D. Pannington. Company to be dissolved if all shares are not subscribed by January 20.

HUNTS, CASH CHEMISTS, LTD.—Capital 800*l.*, in 1*l.* shares. Objects: To take over the business of a chemist, druggist, and drysalter carried on by R. Hunt at 86 Victoria Road, Netherfield, Notts. The first subscribers are: R. Hunt, Netherfield, druggist; I. Hunt, Nottingham, tailor; T. Barton, Nottingham, dentist; O. O. Hooley, Nottingham, druggist; T. L. Searby, Nottingham, fitter; W. J. O. Harris, Nottingham, druggist; and G. H. Lowe, Nottingham, printer. No initial public issue. The first directors are R. Hunt and I. Hunt. Registered office, 86 Victoria Road, Netherfield, Notts.

F. H. PROSSER & CO., LTD.—Capital 2,000*l.*, in 1*l.* shares. Objects: To adopt agreements with F. H. Prosser, and to carry on the business of manufacturing, wholesale, and retail chemists and druggists, drysalters, oil and colour men, dealers in surgical instruments and photographic apparatus, etc., formerly carried on by the said vendor at 112 Spring Hill, Birmingham, as F. H. Prosser & Co. The first subscribers are: F. H. Prosser, Birmingham, pharmaceutical chemist; J. Poole, Birmingham, chemist; W. B. Featherstone, Moseley, chemist; C. Goldstraw, Wolverhampton, chemist; T. Wakefield, Birmingham, chemist; J. C. Mackenzie, Birmingham, chemist; and F. A. Smith, Birmingham, chemist. No initial public issue. The first directors are F. H. Prosser and J. Poole. Registered office, 112 Spring Hill, Birmingham.

THOMAS POWELL, LTD., patent-medicine manufacturers, London.—An issue on December 18, 1907, of 4,088*l.* 4-per-cent. debentures, part of series created to secure 5,000*l.*, has been registered.

Births.

BANNISTER.—At the Park Pharmacy, Bloxwich, on January 18, the wife of F. E. Bannister, chemist and optician, of a daughter.

WRIGHTSON.—At 200 Tressillian Road, Brockley, London, S.E., on January 17, the wife of George B. Wrightson (Messrs. G. B. Kent & Sons, Ltd.), of a son.

ZIMMERMANN.—At Cumberland House, Bromley, Kent, on January 20, the wife of Charles M. Zimmermann, of a son.

Deaths.

ALEXANDER.—At 33 Cedar Grove, Liverpool, on January 13, Mr. George Alexander, chemist and druggist, aged fifty-nine. Mr. Alexander had been a well-known figure in Liverpool pharmacy for many years, and until quite recently carried on business in Park Road as a chemist and dentist. He was also a prominent Freemason and a P.M. of Temple Lodge.

BROWN.—At Maydencroft, Amptill, Beds, on January 9, Mr. James Brown, pharmaceutical chemist, aged sixty-six. Mr. Brown, who died from pneumonia after a brief illness, was the son of the late Mr. Crowther Brown, chemist, Baldock, Colchester, and Amptill, and he entered his father's business in 1856 and remained in it until his death. He took a deep interest in religious matters, being a member of the Society of Friends, and he was also one of the pioneers of the Y.M.C.A. movement. He had served on the Board of Guardians, as Overseer of the Poor, and as a Land-tax Commissioner.

GALE.—At 26 St. George's Road, London, S.W., on January 19, Mr. John Dakeyne Gale, head of the firm of Gale & Co., wholesale druggists, 15 Bouverie Street, E.C., aged sixty-eight. Mr. Gale, who died suddenly although

he had suffered from bronchitis for some years, succeeded to the business established by his father, John Gale, over a century ago. The style of the firm was formerly Gale, Baker & Ward, but recently it has been carried on by Mr. J. D. Gale in partnership with his two nephews, Mr. Dudley and Mr. Aubrey Gale, and Mr. Thomas Jefferson. The funeral took place on Thursday, January 23, at Tooting Parish Church.

GRIME.—At 15 Commercial Street, Newton, near Hyde, on January 10, Mr. John Grime, chemist and druggist, aged seventy.

HARDIE.—At Bucksburn, Aberdeenshire, on January 18, the Rev. John Davidson Hardie, M.A., chemist and druggist. Mr. Hardy was born at Strichen, and served his apprenticeship with a chemist in Fraserburgh, and afterwards was an assistant in Edinburgh. While there he made up his mind to enter the ministry, and accordingly took the Arts course in the University, graduating as M.A. in 1878. He held charges in the Congregational Church at Port Errol and Inverurie, but, his health having twice broken down, he came back to pharmacy and passed the Minor examination in January 1898. He bought a business in Bucksburn, which he carried on until his death. Mr. Hardie occasionally preached in the churches of the neighbourhood, irrespective of denomination. He was a man of high literary and spiritual culture. Mrs. Hardie survives him.

KNAGGS.—At 3 Leonard Road, Folkestone, on January 16, Dr. H. Guard Knaggs, F.L.S., formerly of 189 Camden Road, N.W., aged seventy-four. Dr. Knaggs had been living in retirement at Folkestone for some years. He studied medicine at University College, London, and became M.R.C.S. and L.S.A. in 1855, three years later obtaining the M.D. degree of St. Andrews University. He was an entomologist of some note, and the author of "Lepidopterist's Guide." While in practice in Camden Town Dr. Knaggs contributed a number of amusing poems to *THE CHEMIST AND DRUGGIST*, which, with others, were afterwards published in book form. He was succeeded in practice in Camden Town by his son, Mr. H. Valentine Knaggs, M.R.C.S., L.R.C.P.E., who has specialised in regard to diet, and is one of the leaders of the nut-diet movement.

MURFIT.—Suddenly, on January 11, Mr. Arthur Hugh Murfit, chemist and druggist, aged thirty-nine. Mr. Murfit was senior assistant to Messrs. T. & W. & W. Southall, pharmaceutical chemists, 17 Bull Street, Birmingham, with whom he had been sixteen years. He was highly respected by his employers and his *confreres* in Birmingham. His death was due to apoplexy.

NEALE.—The death took place on January 14, at his residence, Mountain Ash, Tennyson Avenue, King's Lynn, of Mr. John Neale, chemist and druggist, who had for many years carried on business at the corner of High Street and Norfolk Street under the style of "Allen & Neale." Illness compelled Mr. Neale to give up attending at his place of business, but he still kept in close touch with the management, and only three days before his death was writing letters in regard to it. Mr. Neale, who was fifty-five years of age, was formerly in partnership with the late Mr. Allen, and acquired the business from Mrs. Allen. He had been a member of the Education Committee, and in his younger days was a keen cricketer, being a well-known local batsman. He leaves a widow and one son.

OSMOND.—At Diss, on January 14, suddenly, Mr. Harry Osmond, assistant to Messrs. Gostling & Co., chemists, Diss, aged thirty-three.

RUBECK.—On January 16, Mr. Herman Rubeck, of 61 Mitcham Lane, S.W., and 59 and 60 Mark Lane, aged seventy-seven years.

AUSTRALIAN CAJUPUT OIL.—Baker and Smith have discovered a new cajuput oil of substantial medicinal importance in one of the Australian tea-trees which fulfils the requirements of the British Pharmacopoeia for oil of cajuput. The only difference between this oil and the ordinary cajuput oil is that the steareoptene or solid alcohol of the Australian variety is new. This steareoptene does not agree with any known substance previously obtained from plants. The authors are to continue their investigations, and are hoping to be able to show eventually some connection between the structure of the leaf and the oil constituents of these plants, because the oils from the tea-plants vary greatly in characteristics and value.—*Brit. Med. Jour.*

Business Changes.

Properly authenticated business notices (not being advertisements) are inserted in this section free of charge if promptly communicated to the Editor.

MR. A. BOULTON, chemist and druggist, has purchased the business of Mr. S. Cushion at Stanford-le-Hope.

THE AGENORIA Co., LTD., have removed from 24 Minorities, E.C., to Lloyd's Avenue House, Lloyd's Avenue, London, E.C.

MR. S. CUSHION, chemist and druggist, Stanford-le-Hope, has purchased the business of Mr. C. E. Shipman at Billingham, Sussex.

THE drug-business of Mr. R. Hunt, at 86 Victoria Road, Netherfield, Notts, has been taken over by a private company with a capital of 800*l*.

It is stated that the premises lately occupied by Mr. W. Thomson at 128 Derby Road, Nottingham, have been acquired by Messrs. Boots Ltd.

MR. A. E. BEILBY, chemist and druggist, of Ilkeston Road, Nottingham, has opened a branch business at 156 Derby Road, Nottingham, with his son, Mr. Eric Beilby, as manager.

THE chemist's business at 103 Palmerston Road, Southsea, has changed ownership, Mr. Chas. W. Seaber, chemist and druggist, being the late, and Mr. W. J. S. Saul, chemist and druggist, the new proprietor.

MR. ALBERT EDWARD CUXSON having retired from the firm of Witt, Cuxson & Co., surgical-instrument manufacturers, 50 Hockley Hill, Birmingham, Mr. Chas. Wm. Witt will continue the business under the style of Witt & Co.

A PRIVATE COMPANY with a capital of 3,000*l*. has been formed to take over the businesses of Mr. J. Noble, chemist and druggist, 55 King Street, South Shields, and of Messrs. A. D. & D. Reid, chemists, 3 Winchester Street, South Shields.

MESSRS. AYRTON-GRAHAM, LTD., chemists' shopfitters, Liverpool, are now installed in their new and more commodious premises. The offices are at 106 Duke Street, and the addresses for the works are 87 Henry Street and 57 Parr Street, Liverpool.

MESSRS. MARSHALLS, LTD., of 27 Red Lion Square, London, W.C., have acquired premises at 46-47 Colebrooke Row, N., which are used as works, thus relieving considerably the administration of the business which will continue to be done at Red Lion Square.

Personalities.

MR. JOHN STAINER, chemist and druggist, has been nominated to fill a casual vacancy on the Folkestone Town Council.

MR. R. LORD GIFFORD has been unsuccessful in his fight for a seat on the Blackburn Town Council, being beaten by his Conservative opponent.

MR. C. GERRISH, representative in South Africa of Messrs. Southall Bros. & Barclay, manufacturing chemists, Birmingham, is now in England on a short visit, but will leave by the *Walmer Castle* on February 1.

DR. WILLIAM CARTER, who has for so many years held a prominent position as a consulting physician in Liverpool, and is well known to pharmacists there, is retiring from practice, and is to be entertained to dinner at the Adelphi Hotel on July 25.

MR. D. S. FLEMING, chemist, Premier Diamond Mine, near Pretoria, arrived in London this week on holiday. Mr. Fleming has been in South Africa since 1892. He was on Messrs. Heynes, Mathew & Co.'s manufacturing staff at Cape Town for about six years, and since then has had experience in various parts of South Africa, including a post as assayer. When Mr. Fleming returns it will be to start in business on his own account.

DR. W. H. POWER, C.B., F.R.S., is retiring from the position of chief medical officer to the Local Government Board, and Mr. John Burns, the President, has nominated Dr. Arthur Newsholme, F.R.C.P., to succeed him. Dr.

Newsholme is at present medical officer of health for Brighton. He studied at the University College School of Medicine and graduated as M.B. London in 1880, taking his doctorate degree in the following year. He is noted as an authority on vital statistics and in the study of communicable diseases. In 1895 he delivered the Milroy lecture on the natural history and affinities of rheumatic fever, and is the author of numerous publications on public health.

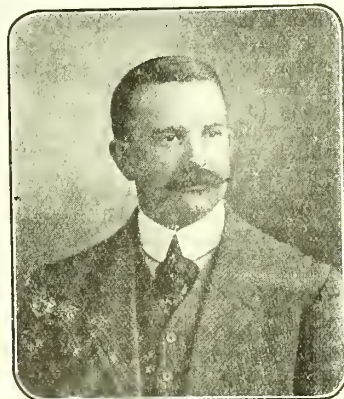
MR. MAURICE SMITH, Ph.C., F.S.M.C., has been appointed by the Lord Chancellor a Justice of the Peace for the borough of Kidderminster. The new Borough Magistrate is a native of Kidderminster. He was educated at Kidderminster Grammar School, and served his apprenticeship with Mr. Griffin, chemist, Kidderminster. Subsequently he was laboratory-assistant to Messrs. Giles, Schacht & Co., of Clifton, for two years, and after passing the Minor and Apothecaries' Hall examinations, Mr. Smith was a dispenser for two years with Messrs. Savory & Moore, at Lancaster Gate, W. After a short course at the Metropolitan College of Pharmacy under the late Mr. Watson-Will, Mr. Clark passed the Major in 1896. He commenced business in Kidderminster in 1901. Mr. Smith has taken a considerable part in public affairs. He was a member of the Kidderminster Town Council, and last March was returned unopposed as a member of the Kidderminster Rural District Council and a member of the Board of Guardians. Mr. Smith is only thirty-six years of age, being the youngest member of the local magistracy.



MR. SMITH.

MR. FREDERICK WILLIAM POWELL, who has been elected President of the Proprietary Articles Trade Association, is a native of Farningham, Kent, and after his education at private schools was apprenticed to the late Mr. John Baily, Ph.C., Margate, the author of the "Physician's Pharmacopœia."

After his apprenticeship Mr. Powell joined the staff of Messrs. Herrings & Co., Aldersgate Street, E.C., to get experience of the wholesale trade, remaining there for a few years. He studied under Dr. Muter, and passed the Minor examination on July 24, 1891. Mr. Powell then extended his experience both of the retail and wholesale sides of pharmacy before joining the directorate of Messrs.



MR. POWELL.

Thomas Powell, Ltd., and during the past ten years he has been managing director of the business. Mr. Powell has, as a manufacturer, been a member of the P.A.T.A. since its inception, and he now takes the highest office in the association with an intimate acquaintance with the working of the organisation, as well as loyal-hearted sympathy with its principles.

MORE ECONOMICAL.—An Irish labourer entered a chemist's shop, and, drawing a paper bag from his pocket, poured on the counter a number of very sticky and unattractive-looking lozenges. "Will yez look at these?" he asked. "What is the matter with them?" asked the druggist. "Pizen, Oi'm thinkin'. Did ye iver see such stuff? Dinnis Daly gave thim to mo b'y, and Dinnis is no frind of mine." "Well, I can mako an analysis." "All right. Oi'll come in to-morrow on me way from wurruk." At the door the Irishman suddenly stopped. "And how much will that 'nalysis be costing me?" he inquired. "Fifteen shillings," was the answer. The man walked back to the counter and replaced the lozenges in the bag. "Niver moind," he said, "Oi'll give 'em to the next docc cat!"

Diary Post-card Competition.

HOME SECTION.

THE competition for prizes offered on Card A., included in each copy of *The Chemist and Druggists' Diary*, 1908, has this year been as keen as ever. The answers to the questions regarding advertisements in the *Diary* prove by their number and diversity that the goods, given publicity in that unequalled advertising medium, are in no danger of ever being overlooked. The sorting required to establish the majorities in favour seems to have been more laborious than usual, and the firms named have a more equal number of adherents. There is no sweeping majority for any advertiser in answer to any of the questions; indeed, in some cases the voting is very close. This is particularly so in answer to the first query:

Which is the most artistically illustrated advertisement?

In this, Allen & Hanburys, Ltd. (pp. 160-169), win by only a few votes over Stevenson & Howell, Ltd. (pp. 8, 9), while Fletcher, Fletcher, & Co. (pp. 23, 24), make a hot third. Then come Hearon, Squire & Francis, Ltd. (pp. 244, 245), S. Maw, Son & Sons (pp. 16, 17), Liebig's Extract of Meat Co., Ltd. (p. ii.), J. H. Haywood (p. 521), Burroughs Wellcome & Co. (p. 175), A. & M. Zimmermann (p. 120), Baiss Bros. & Stevenson, Ltd. (p. 144), and many others.

The answer to the second question:

Which is the best arranged advertisement?

is more decisive in favour of Allen & Hanburys, Ltd. Then in order of voting come the Alliance Drug & Chemical Co. (p. 305), Wright, Layman, & Umney, Ltd. (p. 41), the Standard Tablet and Pill Co. (pp. 256, 257), S. Maw Son & Sons, J. H. Haywood, Parke Davis & Co. (pp. 10, 11), Robinson & Sons, Ltd. (pp. 152, 153), Bernard Slack (p. 112), Daisy, Ltd. (p. 304), Newball & Mason (p. 59), Arthur H. Cox & Co., Ltd. (pp. 250-253), etc.

Which is the most attractive page advertisement?

is a query which has produced considerable variety of opinion, but Bernard Slack's page (112) has most admirers, his close rival being Fletcher, Fletcher & Co., Christy Strong (p. 87), and the Alliance Drug Co., tie for third place, while H. & T. Kirby & Co., Ltd. (p. 317), are close behind, with Stevenson & Howell, Ltd., in full cry. Then come Wright Layman & Umney, Ltd., A. S. Cartwright, Ltd. (p. 509), Davidson & Co. (p. 321), Wyleys, Ltd. (p. 272), Sangers (p. 136), Aerators, Ltd. (pp. 408, 409), the Hull Oil-Manufacturing Co., Ltd. (p. 311), and others.

The fourth query:

Which advertiser makes best use TO YOU of a space less than a page?

is all in favour of Lemco (p. ii.). The next, in order of merit are judged to be Camwal, Ltd. (p. vi.), Pulmonitor Co. (p. 66), the Adora Chemical Co. (p. 64), Schering (p. 120), H. Silverlock (p. 109), Andrew Kinross (p. 105), Bayer Co. (p. 157), Rubwel Co. (p. 312), Iron-Ox Co. (p. 280), Davies, Sons, & Co. (p. 284), F. Wolff & Sohn (p. 486), N. W. Mitchell & Sons, Ltd. (p. 72), Spatula Co. (p. 118), J. J. Hicks (p. 122), Tunbridge & Wright (p. 86), T. F. Bristow & Co. (p. 492), F. S. Cleaver & Sons, Ltd. (p. 479), C. & D. books (p. 208), Cuxson, Gerrard & Co. (p. 508), etc., etc.

Firms that ought to advertise.

One competitor states that the fifth question: "Mention any firm not advertising who should," is impossible, for every firm of any importance advertises in *THE CHEMIST AND DRUGGIST*. Other subscribers, however, suggest that there are several firms (which they mention) who ought to advertise in the *Diary*. The majority cry aloud for the "Vinolia" preparations and soap; "Bovril" should also be advertised, say a large number, and "Scott's Emulsion," "Elliman's Embrocation," "Erasmic" toilet-preparations, and May, Roberts & Co.'s sundries come next in order of demand. Besides these, the proprietors of the following businesses or specialities are adjured to give publicity to their goods in the *Diary*:

Angier's Emulsion	Kodak, Ltd.
Ashton & Parsons, Ltd.	Koko Marieopas Co.
Barnett & Co. (Birmingham)	Macfarlane & Dickson
Battle's Vermin-killer	May & Baker, Ltd.
Blake & Mackenzie	Mellin's Food
Bleasdale, Ltd.	National Cash Register
Blunt & Son (Birmingham)	Odol
Boake, A., Roberts & Co.	Olley, C., & Son
(Stratford)	Owbridge's Tonic
Boileau & Boyd	Pascall, J., Ltd.
Boots, Ltd.	Peps
Bourne, Johnson & Latimer	Price's Patent Candle Co., Ltd.
Bowers Bros.	Pritchard's Teething Powders
Breflitt & Co.	Queleh, Henry
Breidenbach & Co.	Quilliam, John, & Co. (Manchester)
Butler & Crispe	Reynolds & Branson, Ltd.
Ciefa	Richardson, J., & Sons (Leicester), Ltd.
Clark, Foster (Maidstone)	Rimmel's Toilet-preparations
Colgate's Soaps, etc.	Robinson & Cleaver, Ltd.
Crown Perfumery Co.	Robins & Co. (Fairline, etc.)
Dalmas, A. de St.	Rouse & Co.
Doulton & Co.	Ryland Manufacturing Co.
Elliott & Son (Barnet)	Savory & Moore, Ltd.
Ellis, Son & Paramore (Sheffield)	Schacht & Co. (Bristol)
Eno's Fruit Salt	Schweppe's Aerated Waters
Evans, Gadd & Co. (Exeter)	Scott, A. & R. (London, Edinburgh, and Dunblane)
Fennings, Alfred	Segrave Bros. (Kentish Town, N.W.)
Forde's Bile Beans	Seigel's Syrup
Gibb's Toilet-soaps	Smith & Co. (132 Borough, S.E.)
Gibson, R., & Sons, Ltd.	Sutton, Carden & Co. (Finsbury)
Giraud, J., fils.	Sutton, W., & Co.
Goodall, Backhouse & Co.	Taylor, Edward (Manchester)
Harris, Philip & Co. (Birmingham)	Tolkein, C. (Blackburn)
Harrison, C., & Sons (Manchester)	Veno Cures
Heath Bros. (Manchester)	Waterston, G., & Son
Horlick's Malted Milk	Wellington & Ward
Hospitals & General Contractors Co.	Wood's Peppermint Cure
Houghtons, Ltd.	Zambuk
Johnson & Johnson (J. Timson)	
Johnson & Jorgensen	
Jones & Co. (Bow)	
Kaputine, Ltd.	
Kerfoot, T., & Co.	

One competitor suggests that the Pharmaceutical Society of Ireland should advertise their School of Chemistry, Materia Medica & Botany, and another wants to see the advertisement of some firm making light hand-carts and step-ladders suitable for chemists.

THE PRIZE-WINNERS.

Only two have guessed all five questions correctly, and to the following we award 2l. each:

T. E. Bellamy, Western Street, Nottingham.

A. McGuinness, 18 Evelyn Street, Smeinton.

By a peculiar coincidence only two have got four correct answers, and the peculiarity is intensified when it is observed that the second series of prize-winners belong to the same district as the first. We give 10s. each to—

A. Norweb, Fisher Gate, Nottingham.

J. Ford, 3 Thoresby Street, Smeinton.

The following seventeen have three correct answers, and to each we award 2s. 6d.:

A. J. Barnes, 1 Charlemont Street, Dublin.

J. Babbington, 161 Northbrook Street, Princes Road, Liverpool.

G. F. Egg, 42 Peckham Road, Camberwell, S.E.

H. John Henderson, 16 King's Road, Hitchin.

N. Hill, 88 Victoria Buildings, Bath Street, Nottingham.

T. M. Moffitt, 209 Crumlin Road, Belfast.

W. Pilkington, 11 Market Place, Buxton.

Herbert H. Graves, 19 Victoria Road, Surbiton.

W. W. Chambers, 19 Burnham Street, Sherwood, Nottingham.

W. Dennis, High Street, Mundesley-on-Sea.

M. B. Widdess, 118 George Street, Limerick.

A. E. King, c/o Fuller & Co., Ltd., Norwich.

C. E. Bell, Stapleford, Notts.

W. Lloyd Smith, 13 Sherrard Street, Melton Mowbray.

T. Postlethwaite, Central Pharmacy, Southsea.

Leonard Salter, 12 Azalea Avenue, Sunderland.

J. W. Savage, Ellercroft, Bradford, Yorks.

Observations and Reflections.

By XRAYSER.

Educationally and Examinationally

we have outrun the constant since 1868. Midway between then and now the demand for a curriculum became insistent, and the very word acquired the force of a shibboleth. Only those who could properly pronounce it were recognised as true pharmacists. It has drifted into the background since then, and if it has figured in our recent Pharmacy Bills it has only been as a contingent possibility. But it is still, and always must be, the complement of examinations in the best education, and from that point of view the ingenious suggestion contained in an editorial article last week deserves careful consideration. If by weakening our examinations for one class of candidates we could meet the Government demand for less restriction on the sale of agricultural and commercial poisons, and then by adding a curriculum for "pharmacists" we could clear the way for that differentiation which has so often been anticipated, we should fit official requirements more closely to actual conditions. The same examination is now applied to two classes of persons whose styles of business are evidently drifting apart. It does not therefore meet the case of either satisfactorily. At both ends candidates are avoiding it, and changes in the future are inevitable. Why not prepare for them?

One Other Language

(in addition to English and Latin) among the stipulated subjects of preliminary knowledge for pharmaceutical candidates, which is proposed as a substitute for the existing requirement of "a modern foreign language," is accepted as a concession to the comparatively few, but no doubt excellent, persons in Great Britain who count Welsh or Gaelic among their accomplishments. But what of Esperanto? Is that "one other language" within the meaning of the proposed regulations? At present there is probably no authorised examining body where this language is tested, but that disability may not last long. When it is removed, Esperanto will be the language to select. We hear of people who make public speeches in it within a week of commencing to learn it, and if that be true, three or four hours would certainly suffice to cram enough of it to satisfy the ordinary examiner.

Taking Stock

is quite properly recommended to an inquirer as the best means of ascertaining its value. "However roughly this is done the result is bound to be better than guessing." This also is indisputable if by guessing is meant unscientific estimation. But with dependable accounts from a few preceding years it is generally possible to calculate the value of the stock with a close approach to accuracy. Gross profits remain marvellously uniform from year to year in most retail businesses. The average cost of chemists' goods, too, continues curiously constant. It is clear that if these factors can be trusted, exact returns of purchases and sales are all that is necessary for a calculation of the increase or decrease of stock. There may be, of course, special disturbing circumstances, and there are many most important advantages in closely examining stock item by item every year. These advantages are worth the trouble in almost all cases, and particularly where more than one pair of hands are at work.

Public Estimation

of chemists and druggists has never been so high as at present. This was the comforting assurance

which the President of the Pharmaceutical Society offered to his hosts at Wolverhampton recently. We are not surfeited with optimistic cordials of this character, so we are not likely to get intoxicated with the good conceit of ourselves which our chief evidently desires to inculcate; and it is to be hoped that the Wolverhampton chemists went to their businesses next morning in a cheerier frame of mind than usual in consequence of the encouraging message. But it is a dangerous doctrine to preach, nevertheless. "Get a good name and go to sleep" was an old proverb, and it would be easy enough to quote instances of the narcotic effect of a high reputation. It was when we thought ourselves impregnable that our friends the stores stepped in. Moreover, with humble deference, I doubt if the public-estimation theory could be established. Forty years ago the representatives of the public forced a monopoly and a distinctive designation on our fathers; the present representatives of the public are plotting to take both of these from us; they esteem us so lightly that they will not even give us a hearing, and a Cabinet Minister gibes at our frowsty shops, which he compares with the gilt and glitter of those which seek to supplant ours. With every desire at least to deserve the respect of those for whom we work, our attitude in these hard times towards the public has to be exhibited by the formula, "Ladies and gentlemen, we are grateful for any expressions of good will, but please remember that, after all, it's your money we want."

The Apothecary of Mantua

was selecting simples (out of his beggarly account of empty boxes?) when Romeo first noticed him. Probably, as Mr. C. S. Ashton suggests, he was putting together a packet of his famous lung- or heart- or liver-curing herbs for a customer. Mr. C. C. Bell supports Mr. Ashton's view (not necessarily in the form in which I have put it), and I do not hesitate to bow to it. I did not suppose that the apothecary was plucking his simples on the foot-walk in front of his shop, nor did I think it necessary to read Shakespeare as I should read Euclid. The phrase "culling simples" was associated with apothecaries in Tudor times, and Shakespeare, I thought, may have employed it when touching up his play without attaching to it a very exact meaning. When he introduced the juice of cursed hebenon it is probable that he had no definite poison in his mind. The word "cull" is, of course, largely used in the sense of selecting, but now, says Dr. Murray, it is most frequently so used in reference to literary matters. It would be quite in order, for example, to entitle a volume "Lyrics of Pharmacy, Culled from the Columns of THE CHEMIST AND DRUGGIST"; but the Historical English Dictionary gives the second meaning "to gather, pick, pluck (flowers, fruit, etc.)." This is almost invariably how we now employ the word in reference to things that grow. We should not say, "I culled the largest strawberries from the basket." At the end of one of his stories Artemus Ward narrates that his friend said to him, "Come into the garden, Ward," and the showman adds, "We went and culled some carrots for dinner."

Another Literary Allusion

is suggested by a quotation in the new part of the Oxford Dictionary. The word "Pothecary" is under examination, and the line "He saw a 'pothecary on a white horse'" is given from Southey's "Devil's Walk." It is well known that the poem in question is printed in the works of both Southey and Coleridge (by the latter under the title of "The Devil's Thoughts"), but in my copy of Coleridge there is a footnote stating which of the stanzas were written by Southey, and the 'Pothecary' verse is not one of these. Coleridge's version runs:

He saw an apothecary on a white horse
Ride by on his vocations;
The devil smiled, for it put him in mind
Of his friend in the Revelations.

"Apothecary" evidently narrowly escaped getting corrupted out of knowledge in the English of the eighteenth century. Besides "pothecary," which was very general, "pottingar" was not unusual, and even "potter-carrier" is considered worth recording. "Pottingar" must not be confounded with "pottinger," also familiar about the same time, and meaning a maker of pottage, a cook.

"SANITAS" DISINFECTANTS.

"SANITAS OKOL"...	... coefficient	20 to 22	FLUIDS, POWDERS AND SOAPS.
"SANITAS BACTOX" ...	"	10	
"SANITAS SPECIAL FLUID" ...	"	7 to 8	
"SANITAS CREOCIDE" ...	"	5 to 6	
"SANITAS SOLDIS" ...	"	2	

* N.B.—"Sanitas Fluid" is the Standard Disinfectant for all Sick-room and Household purposes.

The "SANITAS" CO.,

LTD.,

LOCKSLEY ST., LIMEHOUSE, LONDON, E.

C. T. KINGZETT, F.I.C., F.C.S.,

Chairman.

WILCOX, JOZEAU & CO.,

49 Haymarket, LONDON, S.W.

WHOLESALE IMPORTERS
OF PHARMACEUTICAL SPECIALITIES.

FRENCH & GERMAN PROPRIETARY MEDICINES

PRICE LIST ON APPLICATION.

LOWEST PRICES.

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TABLE

Analysis, &c., on
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BOURNE,
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WATERS

West End Agents, WHEATLEY & SONS, 24 South Audley Street, W.
And of all Chemists, Wine Merchants, Hotels, &c

JEWSBURY & BROWN'S MINERAL WATERS.

Ardwick Green, Manchester.

An announcement of special importance will be found on page 184—to which readers are referred.

RANKIN'S OINTMENT.

P.A.T.A., 3d., 6d., and 1s.

Well got up.

Well advertised.

Pays well to handle.

SALE RESERVED TO CHEMISTS ONLY.

PART II. POISON. May NOT be sold by unqualified dealers.

Special terms to direct Buyers, and liberal supply of advertising matter post free on request from

RANKIN & CO., PHARMACEUTICAL
CHEMISTS,
KILMARNOCK, N.B.

WARRICK BROTHERS.



LUDDINGTON'S OILS

1/-, 2/6, 5/-, BEST KNOWN
LAMBING MEDICINE

Attractive Advertising. On P.A.T.A.

TOMLINSON & HAYWARD, Ltd., Lincoln.

FLETCHERS' HYDROBROMATES.

The titles "Syr. Hydrobrom." and "Syr. Hydrobrom. c Strychnia" were originated by us in the year 1879 and can only be legitimately applied to FLETCHERS' HYDROBROMATES. Legal proceedings will be instituted against any firm or person dispensing or offering for sale fraudulent imitations of FLETCHERS' SYRUPS.

SOLE PROPRIETORS.

FLETCHER, FLETCHER & CO., LD., LONDON, N.

Lessons from the "Lancet."

MR. AUGUSTUS Q. TUCKER has succeeded in his action for libel against the proprietor of the "Lancet," and a High Court jury has awarded him 1,000l. damages. The offence, substantially, was that our contemporary spoke of Dr.

Tucker's asthma-specific as a "fraud," and the plaintiff as a "quack." Both epithets were previously used by Dr. Waldo, the Coroner; but his utterances in court are privileged. Our contemporary's offence was not in reporting what Dr. Waldo said, but in commenting upon it unfairly. The decision is, of course, subject to revision, and a stay of execution of the judgment was granted in order that this may be considered by the defendant. Without, therefore, discussing the merits of the case, which is adequately reported on another page, certain features of it merit the attention of our readers. There is no question about the gravity of calling any commodity sold to the public "fraudulent." Doubtless many things are so, but when the word is applied to medicines we at once come into a most debatable region, filled with "opathies," beliefs, and particular experiences, which may, if cleverly expounded, place a so-called fraudulent article on the pinnacle of virtue. Use of the term "quack remedy" with reference to dutiable medicines frequently implies nothing more derogatory than that the thing is a nostrum or secret preparation, and in that sense it may be defensible; but it is decidedly unwise to apply the term to any particular preparation. The mere fact that a medicine is not "admitted and approved" as a remedy does not put it in the category of quack compounds. Many medicinal preparations which are to-day admitted and approved by the Pharmacopœias of the world have been taken from the nostrum class, and some of them have originated with men who were "quacks" to their contemporaries. This in itself suggests that the objectionable word should be used with caution, especially as its use is actionable, and proof by a defendant of the correctness of its application must, in most cases, be completely discounted by the experience of grateful humanity. Another lesson which the case furnishes, and one of special significance to the drug-trade, is in regard to the sale of poisons. It is quite surprising to find that both Bench and Bar were a little at sea in this matter. Mr. Justice Ridley commented upon the fact that lately he has had to sign the poison-book when he buys Fellows's syrup of hypophosphites, and this he regarded as new—which shows that last summer's prosecutions are bearing fruit in more strict adherence to the law. It will be remembered that his Lordship was one of the Judges who decided the Rankin's ointment appeal, so that he is not unfamiliar with the Pharmacy Act; but a great deal was made by counsel about the importance of provisions of the Act with respect to the sale of preparations of cocaine and the plaintiff's manner of selling it. Here several interesting observations arise. The analyses submitted to the Court by the defence showed that atropine was isolated from the specific fluid; consequently it is a Part 1 poison, which can only be sold under conditions which are more stringent than those applying to preparations of cocaine. The point was not mentioned in court, but when the danger of indiscriminate sale of cocaine was under discussion several preparations of that alkaloid were handed round which had been purchased from chemists without questions being asked. Such sales of preparations free from atropine were quite in accordance with the law. In the course of evidence an asthma-preparation by Messrs. Oppenheimer was mentioned. This is the No. 21 nebuline compound, which is not quite the same as Tucker's liquid, inasmuch as it contains only half as much atropine and three balsamic extracts which are not in the other—as far as analysis can show (and this must always be kept in view when dealing with analyses of secret preparations, which notoriously "miss" some things and detect others not put in them). The scheduled poisons in the nebuline compound are made known, and

the preparation is labelled "Poison"; but it is well to observe that it should only be dispensed on prescription, and when sold otherwise the transaction must be on the conditions for Part 1 poisons. From the evidence in the Tucker case it appears that the plaintiff's custom has been to deal directly with his customers or patients, but to this, we understand, there are exceptions. It is surprising, nevertheless, that Mr. Tucker has not learnt before now that scheduled poisons may not be retailed in this country except by registered chemists and medical practitioners. Although he is the manufacturer of the preparation, it is difficult to imagine that his transactions are covered by Section 16 of the Act, which exempts "the business of wholesale dealers in supplying poisons in the ordinary course of wholesale dealing." We have not heard of the Pharmaceutical Council interfering with Mr. Tucker's method of trading, either in regard to actual sales or in the manner of selling what appears to be a Part 1 poison; but this, we have no doubt, will be looked into.

British Trade in Canada.

THE conditions and prospects of British trade in Canada are the subject of an interesting report by Mr. Richard Grigg, Special Commissioner of the Advisory Committee, which has been issued as a Blue Book by the Commercial Intelligence Committee of the Board of Trade. At the outset Mr. Grigg points out that among all classes in Canada there undoubtedly exists a strong desire to buy goods from British sources wherever possible, this desire being expressed in the tariff preference amounting approximately to a reduction of 33½ per cent. British trade with Canada is larger in volume than ever before, but the proportion to the whole is less than it was a dozen years ago, notwithstanding the preferential tariff. This is illustrated by the following figures:

		British Imports, Percentage	U.S.A. Imports, Percentage
1893	...	36.92	45.44
1896	...	31.15	50.80
1900	...	25.66	59.17
1905	...	25.98	60.58
1906	...	24.42	59.59

In value the British imports in 1906 were 17,295,000l. as against 42,197,000l., the value of imports from the United States. The preferential tariff in favour of British goods came into effect in 1897. Since then the volume of British trade has increased, but there is no improvement in its percentage to the whole. A great deal of the Canadian imports from the U.S.A. consists of raw materials which pay no duty whatever. The contiguity of the U.S.A. is the chief obstacle to the promotion of British trade, but in spite of this "pull" Mr. Grigg thinks there is room for a large increase in British trade, which enjoys a preference in goodwill as well as tariff. A striking section of the report is that dealing with the shipping ring which regulates North Atlantic freights. It appears that part of the preference designed to encourage the imports of British manufacture goes into the pockets of steamship owners, thereby to some extent defeating the intention of the preference by checking the imports of British goods. What is generally felt to be desirable is the appointment of competent commercial representatives, who, not being Consuls, would have more time to devote to the trade interests of the country which they represent. In a summary of conclusions Mr. Grigg points out that both British and American trade in Canada have to encounter the

growing rivalry of Canadian industries. Some of his suggestions include (1) the promotion of rapid and cheap transit between the United Kingdom and Canada, (2) more careful study of Canadian conditions, (3) better representation by British merchants, (4) greater adaptability and exactness in meeting the wishes of Canadian buyers, (5) the adoption of Canadian standards, weights and measures, and currency for catalogues, etc., (6) better advertising and cheaper postage rates, and (7) more elasticity in terms of credit. Mr. Grigg makes an extensive survey of particular branches of trade, from which we see that the imports of drugs, dyes, and chemicals, etc., into Canada were valued in 1906 at \$7,425,638, divided as follows:—Gums of all kinds, \$1,402,794; nitrate of soda, \$516,867; "proprietary medicines," \$444,541; logwood extract, etc., \$413,805; brimstone, \$436,156; aniline and coal-tar dyes, \$368,972; glycerin for explosives, \$227,948; crude opium, \$285,417; cream of tartar, \$213,254; liquorice, \$192,218; caustic soda, \$181,114; and soda ash, \$149,949. The item "proprietary medicines" doubtless includes the imports of drugs, chemicals, and medicinal preparations associated with a druggist's business, and to this extent is a misnomer. The largest items from the United Kingdom included glycerin, \$307,378; caustic soda, \$148,322; crude brimstone, \$141,102; and "proprietary medicines," \$129,560; these items showing an increase over 1902.

The principal items imported from the United States were: gums, \$1,422,271; soda nitrate, \$373,520; "proprietary medicines," \$329,771; logwood extract, \$309,451; crude brimstone, \$263,434; aniline and coal-tar dyes, \$163,109; and liquorice, \$108,493—all the foregoing representing a substantial increase over 1902. Germany sent aniline dyes and coal-tar dyes valued at \$157,923, or \$3,000 less than in 1902, and the principal item from France was cream of tartar in crystals (duty free) valued at \$162,362. Perfumes, including pomades, toilet preparations, etc., are derived chiefly from the United States and France, which contributed \$109,482 and \$92,042 respectively in 1906. Out of the total amount of \$235,874, the United Kingdom only shipped \$28,733. The soap figures are interesting. In 1902 the British share was rather more than half, \$230,131, and the U.S.A. share amounted to \$179,604. After that year the British import fell to the low figure of \$45,171 in 1906, while that of the United States rose to \$386,992. The decline in British imports is due in part to the erection in Canada of works by an important British firm. The supply of medical goods, drugs, instruments, bandages, absorbents, etc., is almost entirely in the hands of American firms, which Mr. Grigg believes is due to the energy with which the markets are cultivated and to the fact that British firms do not advertise in Canada. Of paints and colours the imports in 1906 were valued at \$1,382,608, of which the United Kingdom supplied \$499,004, U.S.A. \$667,940, Germany \$161,345, and other countries \$54,319. British varnishes, we are told, are excellent in quality but high in price as compared with those from the United States. The above comprise the gist of Mr. Grigg's remarks anent the drug and chemical trades, but there is much other interesting information in his report on general trade which should be the means of stimulating the efforts of British houses to acquire a larger share of business in the Dominion.

Pharmacy in Cuba.

NEW regulations controlling the practice of pharmacy in the Cuban Republic were gazetted on January 1. It appears that many who keep drug-stores in the island are

not doctors or graduates of pharmacy, and by the new regulations they are required to prove their competence for their duties. Accordingly a Board of Examiners has been appointed, comprising Dr. Aristides Agramonte (President), Dr. Manuel Johnson, Professor of Pharmacy of the University of Havana; Dr. Plácido Biosca, Professor of Physics of the University of Havana; Dr. Miguel Garrido, President of the Association of Pharmacists; Dr. Francisco Alvarez, Pharmacist of Mercedes Hospital, graduate of the University of Maryland; Dr. Tomás Padro Griñán, Director of the Laboratory of Contagious Diseases, Santiago de Cuba, graduate in pharmacy of the University of Barcelona; Dr. Arturo Ledón, Director of the Hospital San Juan de Dios at Santa Clara, graduate of Havana University; Dr. Abdón Trémols, Doctor in Pharmacy, of the University of Havana (Secretary). All unqualified persons who on December 30, 1907, were engaged in the practice of pharmacy in Cuba, and who have had at least five years' experience and are at least twenty-five years of age, are required to enter for an examination which will last not less than two days, the scope of which is thus set forth:

First Day.—Oral examination by the Board for one hour as to the physical properties of drugs and the methods of determining their purity; the methods of determining the presence of chemical constituents, and familiarity with the instruments and apparatus used in the practice of pharmacy. Upon finishing this examination, the candidate shall answer in writing five questions of a practical nature with reference to prescriptions, being allowed two hours for the written examination.

Second Day.—Preparation of drugs according to Spanish Pharmacopœia, seventh edition, of 1905; recognition of drugs or chemical products in ordinary use, as presented to the candidate; and the filling of four medical prescriptions, with explanation of the steps taken. This part of the examination will be oral and practical, and for it the candidate may be allowed the amount of time deemed necessary by the Board. Not less than four members of the Board will be present at all meetings.

If the candidates satisfy the Board of Examiners, they will receive a certificate of practitioner of pharmacy, entitling them to practise either as proprietor of a pharmacy or as expert assistant. We gather from the decree that a fee of \$50 is to be paid to cover the cost of examination and the issue of the licence. The regulations seem to be on the whole reasonable, and the fact that the examiners comprise Spanish and American pharmacists should ensure the competence of those who pass the Board.

The Winter Issue Cover.

The chemist tears the wrapper off and, lost in admiration,

He looks at wise Hippocrates, till Galen holds his glance,
He notes the ancient pharmacy and looks for inspiration

To other niches occupied by men whose deeds enhance
The glory of True Pharmacy, for there he sees Pereira

And Faraday, the links between the Ancient and the New,
And although he loves the Ancient he must needs be an admirer

Of the Modern, if he would but get reward that is his due.
He regards the back of Cover and the Tablet standard flying

Stirs the blood and spurs him onward to the grim commercial war,

For the customs once so pleasant now alas! are slowly dying,
And the Sedan chair is hustled by the modern motor-car.

It is thus the *C. & D.* proclaims its modernising mission;
(For the ultimate in science gives the adequate in gain),
And the Winter Issue contrasts in a bright artistic vision

The Ancient with the Modern—and the Parable is plain.

Prescribing Proprietaries.

We recently referred to the attitude taken by the "Hospital" on the tendency to prescribe proprietary preparations (*C. & D.*, January 11, p. 54), but we note that in the last

number of that publication the views have undergone a complete change, probably as the effect of maturer consideration. The following extracts illustrate this remarkable change of opinions:

The art of using drugs is not of yesterday, and no one can doubt that for most of the purposes for which drugs are given, well-known remedies are already in existence, and enjoy authoritative recognition. At the same time, both medicine and pharmacy are progressive arts, and improvements and advances which have a commercial motive may still be worthy of professional attention. Hence we think that the physician is right to maintain his freedom to prescribe any drug, whether new or old, which he has reason to believe will help his patients. And we quite allow that a private pharmacist or manufacturing firm who introduces or develops some new medicinal method may reasonably conduct the business which ensues on a strictly financial basis. . . . It follows that there can be no restriction on the development of new remedies and new combinations, and no moral demand that the physician shall not employ them, assuming, that is, that their exact nature and composition are declared.

Morocco Ammoniacum.

There has always been a mystery about the origin of ammoniacum, which is one of the drugs that have come down to us from ancient times with a great reputation, and that, it is now clear, was built upon a gum-resin of different origin from the modern ammoniacum. Dr. Otto Stapf contributes to the "Kew Bulletin" (1907, No. 10) an interesting monograph on the subject. In this he shows that the "ammoniacum" of Dioscorides was obtained neither from *Ferula tingitana* nor *F. communis*, but from *F. marmarica* more probably. The Morocco gum is derived from *F. communis*, this now being determined with certainty by Dr. Stapf. The Persian gum-resin derived from *Dereama ammoniacum* crept in as a substitute for the African article unnoticed by European pharmacists more than 200 years ago, the fact being first noticed by Valentini in 1732. Pharmacognosists who want to know more about the matter should get the "Bulletin," which costs 5d., and can be obtained from Messrs. Wyman & Sons, Fetter Lane, London, E.C.

Virus for Rabbits.

Some time ago a series of experiments in the extermination of rabbits was conducted by Dr. Danysz on Broughton Island at the instance of the Australasian Government. Dr. Frank Tidswell was appointed by the Government to supervise the experiments, and his report has recently been issued. From this we gather that no normal rabbit can resist a subcutaneous inoculation of the Danysz virus, a fatal result following even small doses. The virus rubbed on the skin (denuded of fur) or a drop or two of infected blood, in bouillon culture, placed inside the nostril are equally fatal methods of killing rabbits, but feeding with bouillon cultures is not always fatal. Dr. Tidswell points out that to be of any service the infection of rabbits must occur without artificial aid. He infers from the experiments that pasteurellosis of the rabbit is not so contagious, nor does it spread so surely in the open as in cages. Experiments were initiated on the western side of the island by Dr. Danysz and were continued by Dr. Tidswell. The injected rabbits started an outbreak on the island as a whole, but nothing like the devastation of the cage experiments was forthcoming. Moreover, the identical microbe introduced by Dr. Danysz has been known on the mainland for many years in New South Wales, and a mild disease among rabbits due to its presence is familiar. In spite of this disease, which has already caused epizootics, rabbits go on steadily increasing in numbers in New South Wales. The conclusions of Dr. Tidswell have been condemned by the Pastoralists' Association under the direction of which the experiments were financed and carried out. They assert that Dr. Tidswell was only asked to satisfy himself that there was no danger attaching to the project, and this is proved in his report. Therefore the Association will, if allowed, administer the virus in rabbit-infested districts.

Surgical Catgut.

By LORD LISTER, F.R.S.

(Abstract of a paper communicated to the "Lancet" and "British Medical Journal.")

CATGUT used for ligatures or sutures in surgery should fulfil various conditions. It should, after soaking in water or blood-serum, be strong enough to bear any strain to which it may be subjected, and should hold perfectly when tied in a reef-knot. It must not be so rigid as it lies among the tissues as to have any chance of working its way out by mechanical irritation. Nor should it be too quickly absorbed, but should be consumed so slowly by the cells of the new tissue that grows at its expense that, in case of the ligature of an arterial trunk in its continuity, it may serve sufficiently long as a support for the substitute living thread in its embryonic condition. At the same time it is essential that the catgut be securely aseptic when applied.

Of the various substances which I have tried for the preparation of catgut, that which has, with one exception, most nearly approached the ideal is sulphate of chromium. I was at one time discouraged from using chromium sulphate by finding that it varied extremely in quality according to the manufacturer who supplied it. Thus one sample got from a well-known firm proved quite insoluble in water.* But a perfectly satisfactory result was obtained by adding solution of sulphurous acid (P.B.) to solution of chromic acid until the rich orange-brown of the latter has passed through grass-green to the pure blue of chromium sulphate. When this has occurred no more should be added, since free sulphurous acid produces a precipitate with bichloride of mercury, and would thus, in proportion to its amount, withdraw the germicide from solution when the two liquids are mixed. In order to make quite sure that no free sulphurous acid is present, it is well to keep a few drops of the chromic acid liquid in reserve, and add them when the blue colour has appeared, so as to restore the green tint.

Another point that requires attention arises from the fact that the P.B. solution of sulphurous acid, as obtained from the chemist, is generally somewhat deficient in the amount of SO_2 , in consequence of loss by volatilisation. Hence it is necessary to use a smaller quantity of water for dissolving the chromic acid than would otherwise be used; and when the proper tint has been got, add enough distilled water to bring the liquid to the requisite measure.

The following directions for preparing the catgut were given to manufacturing chemists in 1894:

The preparing liquid must be twenty times the weight of the catgut. So for 40 grains of catgut 800 grains of preparing liquid are required. It is made by mixing two liquids—namely, the chromium sulphate liquid and the sublimate liquid.

The sublimate liquid is:

Corrosive sublimate	...	...	2 grains
Distilled water	...	...	320 grains

The sublimate may be dissolved by heat, but the solution must be used cold.

The chromium sulphate liquid is prepared thus:

Chromic acid	...	...	4 grains
Distilled water	...	...	240 grains

Add to this as much sulphurous acid (P.B. solution) as gives a green colour. If more is added the colour becomes blue, which shows that rather too much sulphurous acid has been used. It is well to reserve a few drops of the chromic acid solution, to be added after the blue colour has just appeared and restore it to green. Then enough distilled water is added to bring the green liquid up to 480 grains. Then add the sublimate liquid.

The catgut is kept twenty-four hours in the preparing liquid, and is then dried on the stretch.

N.B.—It is essential that the CrO_3 and SO_2 solutions be mixed before the HgCl_2 solution is added.

Catgut prepared in this way remains actively antiseptic in its substance for an indefinite period.

* I learn from Messrs. Morson (of Elm Street, Gray's Inn Road), who have devoted a great deal of attention to this salt, that its most suitable form requires very great care in its preparation in order to avoid variation in its composition, and also that it is extremely hygroscopic, so that, unless it is very carefully preserved, water in variable amount becomes associated with it, another cause of uncertainty in its composition.

Dr. Chamberlen's Pills.

A Reminisence of Old Edinburgh.*

By A. K. STEWART.

THROUGH the kindness of Dr. A. S. Cumming, of Ainslie Place, it is my privilege to show interesting pharmaceutical relics which come from an old Edinburgh shop in the Luckenbooths, somewhere in the vicinity of what is now the Public Health Office. The names of the Chamberlens are well known to the medical profession, and no course of lectures on obstetrics is complete without some reference to them. Originally Huguenot refugees who came to Britain after the revocation of the Edict of Nantes, about 1569, they rose to eminence, and were physicians to the Royal Family during several generations. It has been shown by Dr. Aveling that in all probability Peter Chamberlen, the elder, was the inventor of the forceps as an instrument in midwifery practice, and their use was kept as a family secret for many years.

It is not, however, so well known that for many a year there was dispensed in Edinburgh, in the Luckenbooths, a proprietary pill which went by the name of Dr. Chamberlen's pill, and which purported to have been originally prescribed by Dr. Hugh Chamberlen, physician to Charles II. The secret of this pill descended to an old lady, Miss Margaret Telfer, a patient of Dr. Cumming's, who died recently over eighty years of age. Some years before her death she handed over the prescription, together with all the paraphernalia connected with it, to Dr. Cumming, and it is these I am enabled to exhibit to you to-night. Miss Telfer had never sold the pills herself, but remembered assisting her father, George Telfer, to compound them when she was a little girl. The exhibits are figured in this article.

*The true and genuine Receipt of Dr. Chamberlen's
Receipt of his Pills. By George Telfer,
1662.
Take three pound of the best of
Barbadoes aloes, in preference of the
one pound of best scammony, Aleppo
halfo pound of scotch aloes
Let all be beat into a fine powder and put through
a search making the same with as much
agrio powder as will make a proper
the pills to be smoothed with the tip of Claws
have Telfer*

*you will see my father made my pills at first
but it is just the same as proportion he had
the pounds long before he died just as above. But now
just with his hand and work to show
what was in the receipt. That was your worthy
grandfather's charge to me to be pointed to
the receipt and always the very best material
that can be procured. God bless you
Wm. Telfer*

The Prescription, written by Margaret Tailour for her nephew, the George Telfer already alluded to. It is not dated, but must have been written about the end of the eighteenth century.

The word "cabolin" is doubtless meant for "caballin," a coarse, rank-smelling variety of aloes called horse aloes. The word "caballin" means "fit for a horse." The words "aqua apodemia" doubtless mean "hot water," "apodemia" being a corruption of the word "apozeme," a decoction.

* Abstract of a paper read to the North British Branch of the Pharmaceutical Society on Wednesday, January 22. The illustrations are from photographs by Mr. Alex. Ayton, 42 Bruntsfield Place, Edinburgh.

Two invoices of the drugs sent by Messrs. Corbyn, Stacey & Messer, 300 Holborn, London, were also shown. The first is dated 6th mo. 17th, 1796, and is for

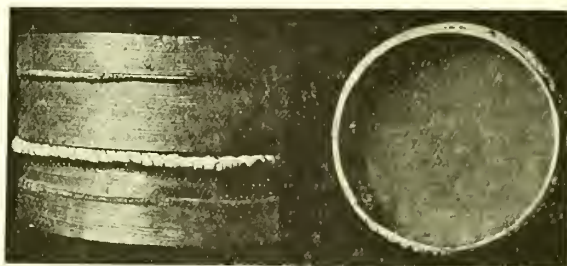
Barbadoes aloes, 10 lbs. at 4s.	...	£2	0	0
Aleppo scammony, 4 lbs. at 42s.	...	8	8	0
Socotrine aloes, 2 lbs. at 8s.	...	0	16	0
Box and shipping	...	0	1	0
		£11	5	0

The second, dated "10th month, 16th, 1799," shows that in the meantime Aleppo scammony had fallen to 34s. per lb. In the first invoice a footnote attributed the high price of



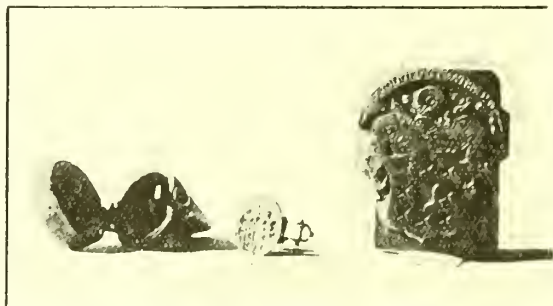
A large bell-metal mortar, bearing the inscription, "Dinah Fenn, 1662."

scammony to the war—doubtless the war with France. A note attached to the second invoice is signed "J. Corbyn & Co."



A copper sieve, or, as it was called in Scotland in former days, a search, for sifting the powder after the ingredients had been brayed in the mortar.

For many years the Chamberlens were looked on as being no better than common quacks because they did not disclose the secret of their various methods; but Dr. Aveling points out that they must not be judged by the present ethical



A steel box, seal, bearing the Chamberlen coat-of-arms, with which each box was sealed as a guarantee of genuineness, and engraving of the arms.

standard of the profession, but rather by the customs of the times in which they lived. He holds that almost everyone then had his proprietary secret, which he jealously guarded and used in his professional practice. Indeed, the antipathy with which the profession regarded the Chamber-

lens does not seem to have been so much because they used secret methods as because they fought continually against the disabilities which the College of Physicians laid on the barber-surgeons. It will be noticed that the propriety of the prescription not only got her materials openly from a most reliable whole-



Concerning the Use and Virtue of Dr. HUGH CHAMBERLEN'S
Famous Purgative PILLS.

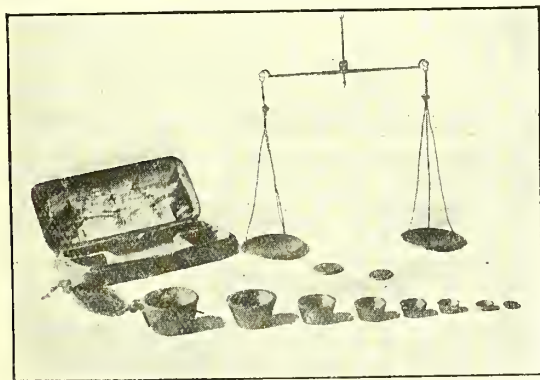
DR. HUGH CHAMBERLEN, physician in ordinary to King Charles II, and celebrated practitioner in midwifery, having by long study and practice, found out many things for preserving and restoring health, particularly, excellent Purgative Pills, efficacious against most of the disorders incident to the human body, whether aged, adult, or infant, of both sexes, where purgation is requisite. They are innocent and safe in their operation, and may be taken with safety at any time of the year, and are particularly efficacious in pains of the stomach, cholic, rheumatism, jaundice, dropsy, stone-colic, and tympany; all venereal disorders; the fluxes, itch, and other cutaneous distempers; diseases of the neck, spleen, vertigo, epilepsy, palsy, headache, and tooth-ache; obstructions, and all other diseases of women, and are composed of such medicines, that they cannot be maliciously taken under any of that sex's circumstances, even with child, or in child-bed. They may be safely given to any child, who can swallow pills, for the rickets, worms, and any distempers they are infected to. The doses are from 3 to 7, and from 7 to 9, for a man; 1, from 5 to 7 for a woman, and from 1 to 3 or 5, for a child under ten years of age.

They may be taken at night going to bed, or early in the morning; and the patient may go abroad in day-time, keeping warm, but not fast. They may be taken three or four days together, and then repeat a day or two, and so continue, until cured. They are friendly to nature, and operate very gently and effectually. Wherefore, he thought proper to recommend them to the Public, after having proof of their success in each of the above mentioned distempers; and they are also approved of by the most famous physicians in Scotland. They are particularly excellent for carrying to sea, as they will not spoil in twenty years, if kept close and dry, and proper for seamen, soldiers, and travellers, and such as must go about their affairs, as confinement is not required.

The secret of making these valuable pills was communicated to John Davies surgeon, by Dr. Chamberlen, to whom he afterwards gave his full authority to prevent counterfeits, and warrant under his hand for him and his heirs to use it. The said John Davies handed it down to his daughter Anne Davies, who communicated it to her husband John Tailleur merchant in Edinburgh, who has made up and sold the said pills since the year 1725. The secret is now in possession of his grandson George Tailleur, who continues to sell them in the shop formerly possessed by the said John Tailleur, at the head of Don's Close, opposite to the Luckenbooths, Edinburgh, at 2s. 6d. each box containing 75, and 1s. 1d. for each box containing 30, duty included; and in proportionally for boxes containing larger or smaller quantities.

The printed advertisement, bearing the Chamberlens' arms and motto, "Constante Fideiua," which was wrapped round each box.

sale chemist's, but she carefully enjoined her successor to use none but the very best materials, and it is most probable that this injunction was handed down by the original compounder, Hugh Chamberlen. It was an honest, good pill in its way, and was probably very popular with



An old pair of hand dispensing-scales, with two weights. The weights are a guinea and a half-guinea, which were then recognised weights in dispensing and selling drugs. A set of old weights, fitting one within the other, and contained in a brass box, such as were used in the old days by the apothecaries.

our grandparents. The coat-of-arms used is identically the same as that used by the Chamberlens, as shown in Dr. Aveling's book. The crest is different from that used by Dr. P. Chamberlen, but it is not uncommon for people to alter their crests, and possibly this may have been done by a later member of the family. The particulars of this old Edinburgh proprietary pill seem worth putting on record on account of its reputed connection with a famous family of medical practitioners.

Note on Ointment-bases.

(Abstract of a paper read to the North British Branch of the Pharmaceutical Society on Wednesday, January 22.)

By ROBERT TOCHER, Ph.C.

A GOOD all-round ointment-base should be a fine, soft, fatty substance of about the consistence of fresh butter—that is, it should easily be spread upon the skin or on lint by means of a spatula. It should also have a melting-point ranging from 37° to 42° C., and a specific gravity ranging from 0.850 to 0.900; it should not be liable to turn rancid, or to be decomposed by the medicament with which it may be mixed; and, finally, it should be easy to make at a moment's notice in the dispensary of any pharmacist. Called upon some time ago for bases better than those of the B.P. and others in common use, the author experimented by mixing the lanolins with the soft paraffins in all possible proportions, till, ultimately, two satisfactory bases were found, consisting in each case of equal proportions of lanolin and soft paraffin, viz.:

Base 1.—*Unguentum Lanæ Anhydrosium*.

Anhydrous wool-fat and yellow soft paraffin, equal parts of each.

Base 2.—*Unguentum Lanæ Hydrosium*.

Hydrous wool-fat and white soft paraffin, equal parts of each.

These ointment-bases he has kept in stock and used, especially for dispensing, and has found them the most useful and satisfactory bases he has ever handled—simple to the prescriber and easy for the dispenser. Not only do they mix well with all insoluble powders, soluble powders, and oils, but they mix admirably with watery solutions, and with spirituous solutions better than any other bases do. Compared with these fine ointments, the paraffin ointments, under the microscope, present a very coarse appearance. Compared as to melting-points and specific gravities the results are as follows:

Unguentum lanæ anhydrosium: m.-p. 40°-42° C.; sp. gr. 0.897.

Unguentum lanæ hydrosium: m.-p. 38°-40° C.; sp. gr. 0.896.

Unguentum paraffini albi: m.-p. 46°-47° C.; sp. gr. 0.830.

Samples of simple B.P. ointments made with the new bases were exhibited, along with fair samples of the same ointments made with the official basis. The fineness and uniformity of the new ointments were very striking.

Two ointment-bases, almost solid, which can be made as required when a prescription for such a thing as *ung. methyl. salicylatis* (50 per cent.) comes in, were next referred to. A well-known pharmacologist expresses the opinion that all the methyl-salicylate ointments on the market, and of standard works, are not half strong enough. A 50-per-cent. ointment at least is necessary, he says. The following are the bases for such ointments—the yellow for coloured oils and liquids, the white for colourless oils and liquids:

Unguentum Durum Flavum.

Ceræ flavæ et adipis lanæ, partes æquales.

Unguentum Durum Album.

Ceræ albæ et adipis lanæ hydrosi, partes æquales.

These bases are not put forward with a view to superseding the known bases, but rather, in the first place, as suggested bases for medical men, who could prescribe them in their own individual prescriptions. The bases have been adopted by the committee for the "Glasgow Formulary."

A LITERAL INTERPRETATION.—A farm hand in the neighbourhood of Medelby (Holstein), who was suffering from sore throat, paid a visit to a doctor. The latter wrote out a prescription, telling the patient "to apply the remedy to his throat and then to wrap it up in a thick cloth." These instructions were carefully carried out, and when, later on, the master inquired after the sufferer's welfare, the latter, still wearing the cloth round his neck, declared that the remedy had helped him. Judge of the astonishment, however, when, the handkerchief being taken off in order that the throat might be examined, the doctor's prescription-slip was disclosed, carefully pressed against the part affected.

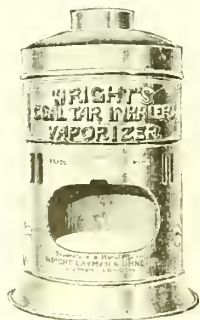
Our Town Traveller.

The Thames is never more impressive than it is at this time of the year. As one stands on one of the bridges the seagulls circle overhead and around, and, looking up and down the river, the haze gives softness to the distance as it tones down the architectural features of the river-bank. Crossing Southwark Bridge one sees the outline of the great dome of St. Paul's high up in the landscape on the one side, and in the other direction, stretched across the river like a huge black barrier, is the railway-bridge leading to Cannon Street Station, over which trains pass and re-pass every minute of the day. Close to the water's edge on both sides of the river are tall warehouses, into which merchandise from all ends of the earth is being unceasingly piled from barges alongside. Just over the bridge, and still in the whirl of human activity to which I have referred, is

THE HOME OF WRIGHT'S SOAP.

I have often called at the laboratories of Messrs. Wright, Layman & Umney, but as one generally sees something new, and, moreover, may obtain a stimulating chat with Mr. J. C. Umney, the visits never cloy. The primary object of my journey was to look over the factory devoted to packed pharmaceuticals and soap. As recently noted in the *C. & D.*, the company have produced a new edition of the illustrated price-list dealing with these matters. In looking through this list I saw some items with which I was unfamiliar, hence a voyage of investigation. Here are some of the items I noted: An addition is corn-paint in stoppered bottles in which are grooves to hold the camel's-hair brush with which the paint is applied. In the styles of malt-extract packages, the wide-mouth jar with patent airtight screw-caps is quietly pushing out the older bottles. The jar-package is known as Style 4 and 5. A distinctive appearance is given to a series of packed powders, of which compound liquorice-powder and Gregory's powder may be cited. The former is put up in tall amber-tinted panelled flats fitted with boxwood-top corks, while the Gregory's powder is in similar bottles but crystal glass. I should also like to call attention to the high-class Style 3 in citrate of magnesia. The bottle is a blue-tinted Cheltenham fitted with boxwood-top cork, while the corners of the bottle are tastefully rounded off, with the consequence that the appearance is much improved. The manufacture of effervescents is undertaken on a large scale, and the operators seem to have no difficulty in producing uniform granules. This is the time of year when contracts are made for spring and summer requirements, and there is considerable activity in this department. Some other new or special lines are fruit-crystals, phosphorised liver-salts, packed disinfectants, digestive syrup, foot-powder, cold cream of violets, eau de quinine hair-tonic, and emulsions. Perhaps the *pièce de résistance* is the lily foam, a non-greasy toilet-preparation. The label and carton used for this are printed in gold and colours, while the perfume is delicate and true to nature. In the coal-tar department I gleaned some inside information about the success of the recent births competition. The number of entries was astonishing, but, owing to the vagaries of the birth-rate, nobody gave the exact number. As has been announced, some competitors came very close, and the

awards seem to have given complete satisfaction. Wright's coal-tar inhaler and vaporiser is at the moment enjoying a boom which looks like lasting. It appears that medical men were invited to try the apparatus, an invitation which many hundreds accepted; so it happens that chemists are being asked for the vaporiser. When I went into the office I found Mr. Umney clothed in an atmosphere of coal-tar—a sort of overcoat on his ordinary dress. It was not long before I "spotted" the source of the soothing vapours—there was one of the vaporisers in use. The simplicity and cheapness of the vaporiser are the features which will ensure its success. Although it has been re-



ferred to before in the *C. & D.*, I was quite taken with the absorbent-block principle upon which the inhaler works. With this no attention is needed when once the charge is placed in the lamp and the night-light kindled. As long as the night-light burns—seven or eight hours—vapours are given off.

ABOUT IREX.

I had an interesting chat with Mr. Sigle at the Odol Chemical-works, Park Street, London, S.E., this week in regard to Irex tooth-powder. I wanted to hear how the trade and the public were taking to this latest introduction. I found that the progress that has been made is regarded as satisfactory. It seems that the public appreciate the novel package, and in one case a chemist who took the trouble to give demonstrations of the way doses of the powder are delivered on to the little

porcelain tray sold two dozen bottles in one day. As has been before explained, the package has a simple mechanical device in the top, which, when pressed on to a small shell-shaped tray, releases sufficient powder for one teeth-cleaning operation. This seems to appeal to the public from several points of view; some see it as an economical way of using tooth-powders; others as superior from a hygienic point of view; while another section admires the mechanical device for obtaining the powder. Having attracted the public by externals, it is satisfactory to be assured that the powder itself embodies all those qualities which should be found in a perfect cleansing agent for the teeth. I was particularly struck with two photographs of the appearance of different powders under the microscope. I made some inquiries as to how this powder will affect the sales of Odol, and it was pointed out that the powder is the complement to the mouth-wash.

"We are beginning the year very well," said the ever-cheerful Mr. Grieg, in answer to my stereotyped "How's business?" So I proceeded to look over the cosy little show-room of

BARCLAY & SONS, LTD.,

where Mr. Grieg presides, and found that such seasonable specialities as bronchial syrups, camphor ices, cold-creams, and so forth were much to the fore. For a cold in the head I was recommended the anti-catarth salts (put up at 4s. per dozen wholesale), which are made according to a recipe in "Pharmaceutical Formulas," and are sold by chemists only. *A propos* of the more or less cold weather, bed-warmers are in order, therefore the "Adaptable Bed-warmer" flask shaped with handle (in earthenware) will be viewed with much favour. Messrs. Barclay stock the "warmer" in four sizes, the tiniest (and quaintest) being a miniature bottle (costing 10d. to the retailer) suitable for inclusion in a lady's muff. The larger sizes are in multiples of quarts and sell at about 1s. 9d., 2s. 3d., and 3s. retail respectively. Teats for feeding-bottles made of transparent rubber are another novelty. They are made in all shapes and sizes, and the advantage of the transparent teat from a hygienic point of view is obvious as soon as it is held up to the light. The least particle of milk or food left in the teat is shown, and the necessity of cleansing made manifest. The prices are about the same as those of teats made of ordinary black rubber. The "Triumph" pump-spray has a rotary action. It is all metal, and the spray evolved is so profuse and diffuse that it makes the article invaluable for the perfuming of large rooms, halls, theatres, and so forth. The advantage of the elliptical indiarubber syringe is that in compressing the whole of the bulb is squeezed by the hand instead of



only a part, as with the usual globular bulb. Other things in Messrs. Barclay's showroom worthy of the smart chemist's attention are the "Exelandra" corn-knife (1s. retail), and the "Gripwell" dressing-combs. The corn-knife has an ivory handle, a Sheffield steel blade and forceps in combination. The "Gripwell" combs are hollow-backed, and in various styles. They are light and strong, the greatest success being those packed each in separate cardboard case. The prices run from 11s. 6d. to 43s. per dozen, and they have caught on.

I had a talk with the manager of the

AMERICAN COMMERCE CO.

in his office at 19 St. Bride Street, E.C., last week. This business, I was assured quite emphatically, is run and owned entirely by Englishmen, although the businesses handled in the fine new offices are many and mainly American. The company are agents in this country for the F. A. Stuart Co., the Paris Medicine Co., Ralston Foods, Dr. Kilmer & Co., among others, but it was mainly in connection with the last-named company, of "swamp-root" fame, that I called. In reply to my inquiries regarding the "swamp-root" and the campaign in this country I was informed that Dr. Kilmer's



laboratory, an illustration of which is given herewith, is one of the largest in America. The formula of the remedy was not, of course, disclosed to me, but I was assured that every ingredient entering the laboratory is carefully tested before being used. In order to promote the sale about nine million attractive booklets and almanacs have been distributed all over the country, and advertising contracts with newspapers have been entered into for the year.

Light-heartedly I entered an unimposing building at No. 17 Worship Street, E.C., the other day, to bestow a "passing glance" on the premises and products of

MR. ARTHUR BERLINER.

By the time I left the "glance" had become a bewildered gaze, for I was considerably astonished to discover that Mr. Berliner's premises were about five times more extensive than they looked. Not one building, but several, are required to house the products, stocks, and manufacturing operations carried on by this progressive manufacturer of surgical dressings and druggists' sundries. The business was founded in Worship Street by Mr. Berliner's father sixty years ago, and the present proprietor was born on the premises, where the founder of the business lived until he died. In this connection Mr. Berliner told me that the name is a German one, but it has never been disgraced, he is not ashamed of it, and he has no intention of changing it. Yet he has occasionally to combat the erroneous assumption that the goods sold by Berliner are German goods. Nothing can be farther from the fact. Everything, from the raw material to the finished product, is of English manufacture. About a hundred hands are employed in the various departments, and the business has been built up on the principle of selling good goods, paying strict attention to all orders, small or large, and paying prompt cash for all goods bought. These three good business axioms have led to a steady progression which has necessitated the addition of building after building, until now, besides the two

buildings with a frontage on Worship Street and workshops behind, there has been completed (at a cost of about 6,000l.) a fine new building of four floors and basement in Tabernacle Street. Communication between these buildings has been attained by acquiring and adapting part of what was once Worship Street Police Court. It is rather quaint to pass from a workshop, where, with an electrically driven knife, women are cutting out chest-protectors and so forth (in forty or fifty thicknesses), through a newly made doorway, and come upon two or three one-time prison-cells (doors, padlocks, and peepholes complete), which are now used for storing peaceful cartons for packing wools, bandages, etc., instead of peace-breaking citizens. Higher up (in what was once the charge-room probably) the manufacture and packing of tooth-powders and tooth-paste are going on—surely a change from other days. Reverting to the original buildings, we traverse floor after floor, where raw materials direct from the looms are stored, to be used presently in the manufacture of bandages, etc., and lints, gamgees, etc., in bales ready for medication. Women are busy making bath-gloves, chest-protectors, body-belts, suspensory bandages, etc., and below are bales being packed ready for export. One basement is stocked with prepared lints, etc., Mr. Berliner being always in a position to send out tons of dressings at a moment's notice. Large stocks of cellulose and woolilose (an increasing trade) are kept on the ground floor, while the folding and preparation of compressed surgical dressings is one of the most interesting features of the place. I watched for some time a machine cutting and rolling bandages of a dozen different widths, the machine stopping automatically every 6-yd. length. This machine is capable of turning out sixty gross of bandages per day. The new building, with an entrance in Tabernacle Street, covers an area of about 7,000 sq. ft., which is only about one-third of the area of the other buildings.

"COFMAN'S."

It is seldom that a pharmacist finds a suitable opportunity for opening a business in the City of London, within a stone's throw of the Bank of England, as is the new venture of Messrs. Cofman & Achner, Ltd., the formation of which company we announced a few weeks ago. Calling at the premises in Leadenhall Street the other day, I found a compact little pharmacy (formerly a tailor's shop), which had been fitted up by Mr. H. Mills, of Old Street, E.C., in his best style. The interior fittings are of a rich dark mahogany, while the ceiling is beautifully moulded, and this, together with a deep frieze in pale-green, gives the pharmacy a neat and attractive appearance. Mr. C. Cofman, the manager, is a B.Sc. of France, and a nephew of Mr. J. Cofman, of 41 Hart Street, Bloomsbury, W.C. The company make a speciality of foreign galenicals and new chemicals, while foreign prescriptions are dispensed for the trade. Indeed, dispensing is to be a feature of the business, and although the premises have only been opened about six weeks, already close upon 300 prescriptions have been dispensed. It is curious that among sundries Mr. Cofman reports a steady sale for feeding-bottles, grease-paints, and face-powders, not to mention the morning "pick-me-up."

Information Wanted.

Inquiries for the names and addresses of manufacturers, or other trade information, not traceable by reference to the advertisement-pages of "The Chemist and Druggist" and the "C. & D. Diary," or not filed in our private register, are inserted here free of charge. Postcard or other replies to any of the subjoined inquiries (addressed to the Editor "The Chemist and Druggist," 42 Cannon Street, London, E.C.) will be esteemed.

90/70. Who are the makers of panelled bottles having the number 5937 stamped on them?

THANKS.—The Swiss Federal Council, through the intermediary of the Chief of the Home Department, has presented to every member of the Pharmacopœia Commission an artistically executed message of thanks, in which the high scientific standard of the fourth edition of the Swiss Pharmacopœia and its practical importance are warmly commended.

Winter Supplements.

ONE of the interesting features of the mid-winter issue of THE CHEMIST AND DRUGGIST is the series of insets by means of which advertisers address the drug-trade in all parts of the world. To carry out the system needs an organism which we, as the originators, alone possess. A potent reason for the success of the inset-method is that an advertiser can carry out his ideas in regard to attractiveness without being limited in his choice of colour and decoration. For the purpose of the following notes we have gone carefully through the insets, and have no hesitation in stating that the beauty shown and good taste displayed in these advertisements cannot be matched in any publication. Colour-printing, black and white work, and letter-press are represented by the choicest of each class of work. This is a method of judging from externals, but it is a good guide in this case, as business men cannot waste time and money in introducing by this method anything but the best. It is on this account that we ask our readers to study their own interests in going through the insets and other advertisements in this issue. The stimulating influence which such an assemblage of up-to-date ideas imparts makes the exercise well worth the trouble. There are only two occasions when we receive insets, the next being for the number published on July 25. The Publisher is at all times glad to send particulars of the method and to assist advertisers in carrying out their ideas.

ALLEN & HANBURYS, LTD., Plough Court, London, E.C., devote a four-page inset to illustrations of packed goods and toilet-specialities. This is worth studying, as prices are given with the illustrations. The printing of the inset is so well done that many will be attracted to it straight away. It will be noted that the labels have a space for the name and address of the chemist, and the fact that the company printed the inset is a guarantee that good work will be turned out in the label-department. (Pp. 32 and 33.)

H. BRONNLEY & Co., LTD., Warple Way, Acton, London, W., have a choice inset about Courvoisier's otto of violet, which "adds a charm to personality." Certainly the perfume is charmingly put up, the quiet dignity of the *tout ensemble* being an appeal to all judges of good taste. Some expressions of opinion from various newspapers will be found overleaf, as well as particulars of the wholesale prices. (Pp. 120 and 121.)

BRUNNER, MOND & Co., LTD., Northwich, Cheshire, tell in a concise manner the advantages of sodium bicarbonate over chalk in the manufacture of aerated waters. These are sufficient to convince anyone with the necessary receptiveness, while the worldwide use of bicarbonate shows that it pays to employ it in all parts of the globe. (Pp. 64 and 65.)

BUTLER & TANNER, Frome, specialise in catalogue-printing. The circular sent herewith has on one side the arguments needed to convince those who are inclined to increase business by the distribution of a price-list. Facilities are offered in obtaining estimates and circulars. The design on the front of the inset is one which shows a style of colour-printing that is very effective in some classes of trade. (Pp. 152 and 153.)

THOS. CHRISTY & Co., Old Swan Lane, Upper Thames Street, London, E.C., are the sole agents for Great Britain and Ireland for Strobin, a straw-hat cleanser. The circular which is given in this number will be recognised by the colour-print of a Panama hat before and after using Strobin. There are several inducements to sell this preparation, which are duly set forth in the inset. (Pp. 64 and 65.)

CURTIS, GARDNER & Co., LTD., King's House, King Street, London, E.C., are business-advisers and the publishers of the "Business Blue Book." In a four-page inset the company tell of the means that can be adopted to force the pace or put vitality into an ailing business. There is an interesting series of booklets referred to on the third page of the inset, which appeal to a wide circle of business men. (Pp. 120 and 121.)

DURAFORT & SON (E. Schmolle, agent), Little Edward Street, London, N.W., are makers of syphons who are not content to rest on their laurels but endeavour to improve on what, when brought out, seemed the *Ultima Thule*. The inset in this number reveals a variety of syphon with porcelain core, and there is figured a new double syphon-filler with which 50 dozen syphons can be filled in an hour. It is interesting to note that the firm was established as long ago as 1836, and are still maintaining their output of novelties. (Pp. 64 and 65.)

FINDLATER & Co., London Bridge, London, S.E., have arranged their inset so that a portion of it, containing prices of the principal mineral waters, can be detached and hung up in a convenient place in the office or desk. As the prices are worked out on the carriage-paid basis, the list is particularly convenient, and enables a chemist to get out an inclusive price and so see the exact amount of profit he is obtaining on the retail price. (Pp. 32 and 33.)

FLETCHER, FLETCHER & Co., LTD., Holloway, London, N., are known on account of liquors and Vibrona, "the ideal tonic wine." The latter is sold by chemists who hold a wine licence, and is so peculiarly adapted for chemists' sale that it is worth pressing on the attention of invalids and convalescents who are ordered to assist Nature by means of light tonic wines. The inset in this issue is so arranged that the main portion can be detached and used as a showbill. (Pp. 32 and 33.)

McKESSON & ROBBINS, New York, U.S.A., give excerpts from their list of "McK. and R. Ovoid Pills." It will be specially borne in mind that these include price-reductions, changes, and additions, so that the list should be carefully scanned. We note most of the pills popular in Great Britain are mentioned. Messrs. S. Maw, Son & Sons, 7-12 Aldersgate Street, London, E.C., are London agents for these pills. The back page of the inset is devoted to Calox, the oxygen dentifrice, which is unique among toilet-preparations. Oxygen is evolved as the powder is used, and nascent oxygen is probably the only efficient deoxidiser that can be used in the circumstances. Mr. A. C. Wootton, 14 Trinity Square, London, E.C., is in charge of the British depôt. (Pp. 120 and 121.)

A. & F. PEARS, LTD., 71-75 New Oxford Street, London, W.C., devote a handsome inset to the ubiquitous Pears' soap. They even go so far as to drop the word "soap," but so well trained are the public that "Pears" conveys all that is needed. The inset gives trade prices and discounts, with a signed statement in regard to the latter. (Pp. 32 and 33.)

The POSTLIP MILLS insert samples of English-made grey filter-paper and seidlitz blue paper. The filter-paper is intended for trial, so that a chemist can really test the quality of the paper by the side of the article he is at present using. The seidlitz blue or self blue is fast to acids and alkalis. The papers are obtainable at all druggists' sundriesmen. (Pp. 152 and 153.)

PULMAN & SONS, LTD., Thayer Street, Oxford Street, London, W., are specialists in card-index and filing systems. They moreover make a feature of adaptations of the system to chemists' use. Thus particulars will be found in the inset regarding cards for account-keeping, prescription-

recording, and customers' names. It will be seen that the equipment can be had on the extended-payments system. (Pp. 120 and 121.)

RUDDUCK & Co., 262 Old Street, London, E.C., give some examples of the class of shop-fittings which they turn out. The prices, being attached to the illustrations, enable those who contemplate fitting or refitting to obtain a near estimate of the cost of such work. The inset gives particulars of dispensing screens, counter cases, counters, wall-fittings, and upright show-cases. (Pp. 64 and 65.)

GEORGE SCOTT & SON (London) Ltd., 2 Talbot Court, London, E.C., have an inset which will interest a good many chemists. It refers to the apparatus used in the larger manufacturing operations. The illustrations show a drying and condensing apparatus, vacuum-drying apparatus, distillation and evaporation plant, mixers and vacuum pumps and compressors. (Pp. 152 and 153.)

STEVENSON & HOWELL, LTD., Southwark Street, London, S.E., have one of the finest insets in this number. It refers to the "red ball" brand of real-fruit essences. Each of the eight panels into which the front of the sheet is divided represents a different essence with a finely produced picture in colours of the various fruits. This is done by the three-colour photographic process. On the back of the page there is an argument which should convince unbelievers in the advantages of the best aerated-water essences. (Pp. 64 and 65.)

WM. R. WARNER & Co., British Depôt, Francis Newbery & Sons, Ltd., 27 and 28 Charterhouse Square, London, E.C., occupy an eight-page inset with particulars of a few of their leading lines in pills, tablets, and other pharmaceutical products. On the third page there is a novel tablet-display case; it is a corner case, and would be found to fit several positions on the counter. There is also given a selection of packed Warner-made products which conform to the standard ideas of neatness and attractiveness. The reader should note also the prescription products mentioned on the last page, the information being usefully compiled. (Pp. 32 and 33.)

The Week's Poisonings.

ELEVEN fatalities, six being misadventures, have been reported since our last record. At Hove Thomas Harris (66), an engineer, drank spirit of salt in mistake for whisky, and died.—John Dixon, a stonemason at Bolton-le-Sands, who had lost his sense of smell and was nearly blind, took a fatal draught of liquid ammonia in mistake for gin.—William Wilson (80), of Edenderry, co. Down, died from the effects of some tartar-emetic which he took accidentally. He obtained $\frac{1}{2}$ oz. of the drug from Mr. Alexander Andrews, chemist and druggist, Banbridge, for use among his cattle.—Another misadventure was a case of carbolic-acid absorption. John Tupper, a Chelsea butler, was found in a bath with the lower part of his body submerged and very badly burnt. It is surmised that deceased had on several occasions put carbolic acid in his bath with the idea of curing a skin disease which he imagined he suffered from. The carbolic acid was absorbed by the skin.—At Gressenhall Workhouse Frances Beckett (59), one of the inmates, died after taking a dose of carbolic lotion which had been given to her in mistake for Epsom salts. After hearing the evidence at the inquest on Beckett the Coroner, in summing up, drew attention to the circumstances under which the assistant-matron came to give the deceased the carbolic acid instead of salts. He said if anyone went to a chemist to get a bottle of poisonous solution the chemist was bound by law to furnish it to the purchaser in a bottle distinct from an ordinary medicine bottle, but there, in the Workhouse, they made up poisonous solutions on the premises, and put them in a common wine bottle, exactly the same kind as that in

which they put a solution of salts used as medicine for patients. The jury found a verdict that deceased died from a dose of carbolic acid accidentally administered. The Foreman added that the jury thought in an institution like that greater care should be exercised in dealing with such things.—The wife of an Eccles spinner also administered some carbolic acid to an infant in mistake.—A man named Chandler committed suicide with carbolic acid at Stone, near Dartford.—The dead body of Mrs. Dolly Scott-Harden was found in Goring Wood, investigations showing that death was due to morphine poisoning.—Francis Maxwell Ryan (50), a solicitor living in West Kensington, took about 6 oz. of chlorodyne, dying from morphine poisoning.—The cocaine fatality is dealt with elsewhere.—Annie Wells (38), of Bermondsey, got into the toils of moneylenders, and was so worried that she poisoned herself with oxalic acid.

Chemical Society.

A MEETING of the Society was held at Burlington House on Thursday, January 16, Sir W. Ramsay, F.R.S. (President), in the chair. After the despatch of the usual formal business, it was announced that the Council of the Society had selected a number of names of foreign chemists for submission to the Fellows for election as

HONORARY FOREIGN MEMBERS,

and they would be balloted for at the next meeting. Of the seven names mentioned by the President those best known to pharmacists are probably the following: M. Le Bel, well known in connection with the stereo-chemistry of carbon and nitrogen compounds; Professor Albin Haller, one of the best-known French authorities on the constitution of synthetic dyes, who will be remembered as representing the French Chemical Society at the Perkin Jubilee celebrations in 1906; Professor Armand Gautier, who, since the death of Berthelot, is, perhaps, the best-known of French chemists, and whose researches deal with practically every branch of the science; Mr. T. W. Richards, to whose painstaking and laborious researches our now accurate knowledge of the atomic weights of most of the elements is largely due; and Professor Wallach, to whom more than to anyone else we owe the elucidation of the constitution of the terpenes and other constituents of essential oils.

The papers down for reading, though numerous, included few of general interest. The first was a contribution by Messrs. Fox and Hewitt to the problem of the relationship of colour and constitution, and discussed the question of the formulæ to be assigned to the salts of *para*-hydroxyazo-compounds. The second paper was by Mr. Blackman, and described

A NEW VAPOUR-DENSITY APPARATUS,

which consists of a cylindrical glass bulb with an aperture at the bottom into which a rubber stopper can be securely fixed with copper wire, and terminating at its upper end in a graduated, thick-walled capillary tube, about 12 in. long, in which two threads of mercury, separated by a short column of air, act as a manometer. In using the instrument a small quantity of mercury is put into the bulb, and then a little bulb containing the liquid under examination; the rubber stopper is then inserted and fixed, and the apparatus is immersed in steam, or other vapour, kept at a temperature high enough to volatilise the substance. As the vapour is formed the mercury indexes are pushed along the capillary, and finally assume a stationary position. This change in position, and a knowledge of the volume of the apparatus and of the weight of substance used, enables the density of the vapour to be deduced. In the discussion which ensued, the President congratulated the author on the ingenuity of this method, and suggested that he could make the apparatus a little simpler by hermetically sealing the aperture at the bottom after introducing the liquid, and pointed out that at temperatures above 180° slight errors might be introduced by the volatilisation of some of the mercury.

The last paper read was one on the constitution of *iso*-nitroso camphor by Messrs. Holt and Forster.

Notes on Novelties.

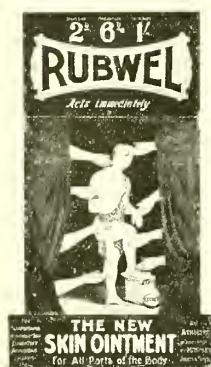
Carramon Cards.

CARRAMON, LTD., 1A Abercromby Place, Edinburgh, whose business is now under the management of Mr. H. Bristowe Care, have sent us a selection of the advertising-material which they supply to retailers of Carramon cough-cure. One of the most striking of the showcards bears the words "Carramon Cures Coughs" in brilliant scarlet script letters, which are seen both by night or day upon a black ground, the letters being translucent. There are also plain cards of various sizes with simple and direct wording, besides one which appeals more directly to Scotch people. It is the reproduction of some Doric verses, appropriately illustrated, which recently appeared in the "Wizard of the North." Posters, handbills, and various other advertising-material are liberally supplied by the company, who invite correspondence from wholesalers and retailers. Carramon cough-cure is on the P.A.T.A. list.

The "Rubwel" Sign.

We mentioned a fortnight ago that the Rubwel Co., 34 Seedley Road, Pendleton, Manchester, had introduced a novel show-card resembling a narrow miniature stage. We now show a small engraving of this. The original is printed in seven colours. The perspective of the sign does not come out quite clearly in the reproduction. The background stands several inches from the curtains, and the man who is being massaged stands by himself, the arms coming out from invisible bodies behind. Any chemist who would like to get one of the signs, or a supply of free samples, dummy cartons, showcards and other advertising matter should communicate with the company at the above address, or with Messrs. Locke, Tompsitt & Co., 4 Red Cross

Street, London, E.C., who are agents for "Rubwel" in the south of England, Wales, and foreign countries.



Bockairy's Toilet Specialities.

ONE of the latest of the preparations introduced by Mr. P. L. Bockairy, of Paris, through his London agent, Mr. W. Bonser Hayward, 14 Lawrence Lane, London, E.C., is Lotion Tonique, which is an alcoholic solution of approved hair-stimulants, elegantly perfumed, and put up in 8-oz. sprinkler bottles (similar to illustration) to retail at 3s. 6d., the wholesale price being 28s. per dozen. The tonic is a most agreeable preparation to use, and leaves the hair in a silky condition, while it clears the scalp of scurf and the hair-follicles of *débris*, thus stimulating the hair to renewed growth. Mr. Hayward has also shown us a new show-plaque for the counter, made of bevelled plate-glass, which covers gold lettering upon a mahogany-like ground. This is quite a rich production, and will, we understand, be ready in a few weeks for presentation to customers who desire it.



Toilet Novelties.

MESSRS THOMAS CHRISTY & Co., LTD., Old Swan Lane, London, E.C., a year or more ago introduced an excellent shaving-cream put up in delft jars. It has proved a pleasing toilet preparation for men, and the novel manner in which it is produced has helped to popularise it in the trade. Now Messrs. Christy are putting it on the market in little wooden bowls with a lid which can be used as a saucer to the bowl when shaving, and at other times to protect the cream from the dust. In this new form an

impetus is likely to be given to sales, and Messrs. Christy are so convinced of its value that they will send one of the bowls free to any chemist who writes to them for it. The firm have just introduced something quite new for ladies—viz., a face-powder pencil ("Pondro Pencil" it



is called), made of nickel silver and a little larger than the above figure of it. The tube is filled with face-powder most agreeably perfumed, and owing to its size it can be carried in the purse-bag. On pressing the projecting knob at one end into a handkerchief a little of the powder is emitted. The pencils are sent out in 1 doz. winged boxes, which make an attractive counter or window display (dummies of these are obtainable, also showcards of a novel design). The pencils are 54s. per gross, and retail at 7½d. each (P.A.T.A. minimum).

From Charterhouse Square.

MESSRS. F. NEWBURY & SONS, LTD., Charterhouse Square, London, E.C., have a series of "Quicksale" own-name specialties, which are daintily-packed preparations, offered at moderate prices. The voice-tablettes (3s. 6d. per doz.) are a novel combination of lozenge with nice fruit flavour, and the iron- tonic pills (sugar-coated), put up in one-gross amber bottles, are good quality and value. On these and a nice box of powder for the bath the chemist's own name is printed when an order for three dozen is given. A series of rose cold-cream and camphor-ice in 1d. and 2d. decorated tin boxes is also new in design and very attractive. The firm are making a leading line at present of empty carbolic tooth-powder tins with chemist's own name on them, uniform with the imprint. They are in four sizes, quoted at 7s. 6d., 8s. 6d., 10s. 6d., and 12s. per gross, the minimum order being seven gross. Cinet's zephyr-violets is another distinct novelty. These are buttonholes of wild violets and leaves exactly resembling the buttonholes offered on London streets, but the flowers are compressed sachets saturated with violets, difficult, at a slight distance, to tell from the natural flowers, and they are scented well. A sample card which comes to us has specimens on it of 1d., 2d., 3d., and 6d. buttonholes.

"Calox" Demonstration.

IN the American magazines just now there is a striking picture of a girl whose face has become familiar on the Transatlantic continent as the Calox angel. It is a smiling face, "with teeth of pearl, and dainty chin," and her bejewelled third and index-fingers tell the world that "Calox is the only oxygen tooth-powder." Messrs. McKesson & Robbins, who originated the dentifrice and the girl, have, in their latest advertisement, the striking picture aforesaid, blended six of the faces together, but underneath the six dainty chins are five hands only! We wondered why, until the English agent for Calox, Mr. A. C. Wootton, 14 Trinity Square, London, E.C., sent us the new demonstration for Calox, and obviously the missing finger is reserved for this novel counter-test. Chemists who stock Calox, and want to show to their customers what an antiseptic, cleansing, and deodorising dentifrice it is, dissolve one of the demonstration-tablets in half an ounce of water, in the presence of the customer, whereupon they get a brilliant permanganate red solution; then from the Calox-can they drop a few grains of the powder into it, give a stir, and as the customer looks the red colour fades until a water-white solution remains. There is nothing that pleases people so much as a little and simple chemical experiment like this; and it is good for business. A post-card addressed to Mr. Wootton will enable any Calox retailer to get the needful for the demonstration.

Alexine.

THIS is a French pharmaceutical preparation made from the formula and process of the Joulie laboratory. It is a granular medicament designed to introduce phosphorus into the organism. An interesting and novel feature is that the

preparation contains free phosphoric acid along with bi-phosphate of iron and magnesium. The advantage of the free acid is stated to be that the system can then form the particular phosphate which is wanted. The preparation is in the form of rose-coloured granules and has a pronounced acidity. It is put up in a stoppered bottle, in a case, and a gelatin capsule is supplied as a dose measure. The salt does not effervesce when added to water. Messrs. Thomas Christy & Co., Old Swan Lane, London, E.C., are the agents for Great Britain.

Miscellaneous.

MR. W. MASKEW, pharmaceutical chemist, Clacton-on-Sea, is selling off a portion of his library. A selection of the books are advertised in the supplement in this issue.

AÉRATORS, LTD., Upper Edmonton, London, N., have introduced a new sparklet novelty with which milk, beet-tee, still wines, and flat champagne can be aerated.

MESSRS. E. BREFFIT & Co., LTD., 83 Upper Thames Street, London, E.C., have ready a new fully-illustrated price-list of bottles, a copy of which will be sent post-free to any chemist on application.

WITH'S PLANT FOOD is now in good demand by amateur gardeners, and we therefore call attention to the particulars given in With's Chemical Manufacturing Co.'s advertisement in this issue. The fertiliser is well adapted for sale by chemists.

THE RAT WAR.—Professor W. J. Simpson, who sailed for the Gold Coast on January 18, has taken with him cultures of the Danyasz virus and a quantity of Bouillon extract, sufficient for the production of about 2 tons of liquid virus for the extermination of rats.

MESSRS. INGRAM & ROYLE, LTD., 26 Upper Thames Street, London, E.C., insert in the advertisement pages of this issue a very complete price-list of natural mineral waters, giving the price per dozen in original packages f.o.r. London, or carriage paid to towns in the United Kingdom.

CÆMENTIUM is a remarkable new cement for repairing china. It is practically a liquid porcelain, and does its work well. Messrs. Sangers, 258 Euston Road, London, N.W., are the agents for it, and have informed us that a brisk advertising campaign is about to be started. For particulars in regard to it see our advertising section.

BENGER'S FOOD, LTD., writing in regard to the sale of their food in Victoria (*C. & D.*, January 18, p. 76), say that our surmise is correct that the food referred to is old stock. "Since March, when the official regulations were brought to their notice, all the Benger's Food exported to Victoria has been correctly labelled in accordance with the Act."



A GRAND PRIX.—The illustration herewith gives some idea of the elegant designs employed in prizes awarded by exhibition authorities. This particular design shows the Grand Prix awarded to Messrs. Burroughs Wellcome & Co., of Snow Hill, E.C., for their exhibit at the Travel Exhibition, held during last year at the Royal Horticultural Hall, Westminster. The exhibition was a very successful one both from the point of view of the exhibitors and from that of the public.

N. & G. CATALOGUE.—The new catalogue of photographic apparatus sent out by Messrs. Newman & Guardia, Ltd., Shaftesbury Avenue, London, W., is very well got up. Particulars are given of the new Sibyl camera, which is a distinct hit, as well as other apparatus. The list is prefaced with an excellent account of the working of auto-chrome plates by Mr. R. Child Bayley, who is the recognised expert in the process in this country.

SHOPFITTING.—In connection with our account of the removal of the "Oldest Pharmacy in London" to the Garden City, Letchworth, we learn that the work of removal and refitting the new premises is being carried out by Messrs. S. Maw, Son & Sons. Messrs. Maw are also fitting a new shop-front to the premises of Mr. Snow at Marlow-on-Thames. A new pharmacy is being opened at Cleethorpes

by Mr. J. W. Carr, and the shop-front and complete fittings are being executed by Messrs. S. Maw, Son & Sons, who are also fitting up new premises for Mr. Gray at Chiswick.

MESSRS. SOUTHALE BROS. & BARCLAY, LTD., Birmingham, report that the sales of their "A1" cod-liver oil in 1907 were in excess of 1906. They tell why in this issue. Although they say nothing about the fishing of 1908, it has to be remembered that it is some weeks yet before the cod-fishing at Lofoten begins, and the firm only draw their supply of livers there (Balstad harbour is shown in the advertisement), as only thus can the best oil be secured.

Proprietary Articles Trade Association.

A MEETING of the Council was held at Anderton's Hotel, Fleet Street, on January 15. Mr. P. F. Rowsell (President) in the chair. There were also present Messrs. F. W. Powell (Thomas Powell, Ltd.), G. H. Burroughs (John Thompson, Ltd.), E. Pickering (F. Newbery & Sons, Ltd.), A. T. Webb (May, Roberts & Co.), W. H. Wood (W. Edwards & Sons), W. Lane (James Woolley, Sons & Co., Ltd.), J. G. Atkinson (Norwood), W. R. Barnes (Plaistow), R. Feaver Clarke (Gravesend), H. W. Colley (Grimsby), S. N. Pickard (Ossett), and G. P. Pond (Fleet Street).

THE LATE MR. SCOTT.

Mr. Rowsell, in moving a vote of condolence with Messrs. Scott & Bowne, Ltd., on the death of Mr. A. B. Scott, remarked that the P.A.T.A. had lost a very staunch friend and kind supporter, a sentiment which was echoed by other gentlemen present.

ELECTION OF OFFICERS

The following appointments were unanimously made:

President: Mr. F. W. Powell.

Vice-Presidents: Mr. W. Beetham, Mr. W. Lane, and Mr. W. R. Barnes.

Hon. Treasurer: Mr. A. Tebbutt.

Executive Committee: The above officers, together with Messrs. R. J. Davis (Scott & Bowne, Ltd.) and Lambert & Co., representing Manufacturers' Section; G. R. Barclay and W. Edwards, representing the Wholesale Section; and R. Feaver Clarke and C. J. G. Bunker, representing the Retail Section.

OTHER BUSINESS.

Thereafter the new President took the chair and several matters were discussed. Applications to add articles to the Protected List were dealt with, and in one instance rejected because the proposed profits to be assured were not considered satisfactory.

The proposed legislation in Australia affecting proprietary medicines was also mentioned, and the Secretary (Mr. W. S. Glyn-Jones) informed the members what the London Chamber of Commerce had done in the matter. Owing to the constitution of the P.A.T.A. the Council were unable to give a donation to the Chamber of Commerce Fund raised for the purpose of sending a small deputation to Australia to watch the interests of proprietors.

Congratulations were extended to Mr. Feaver Clarke on his elevation to the Magistrates' Bench at Gravesend.

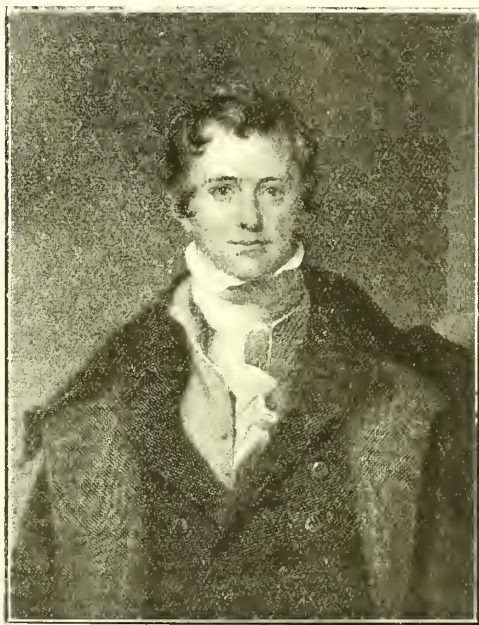
Mr. Pickard referred to the business methods of the proprietors of Wood's Peppermint Cure in sending chemists a supply of the medicine without sanction or order, which he denounced. He said it ought to be brought under the notice of the trade generally, and means suggested for the purpose of negating this manner of forcing chemists to stock goods. Mr. Pickard also mentioned that the firm, by means of circulars, threw considerable doubt on the legality of the P.A.T.A. organisation, and gave this as an excuse for not joining the Association. Mr. Glyn-Jones, replying, stated that his attention had been called to this matter, and that he was taking steps to acquaint the trade anew that the P.A.T.A. system is perfectly legal, and to deprecate this form of undermining the Association.

Mr. Powell, in closing the meeting, referred in warm terms to the able manner in which Mr. Rowsell, his predecessor in the chair, had conducted the business at the various meetings of the Association, and said he would do his best to give similar satisfaction.

A Davy Centenary.

THE first Friday evening discourse of the session at the Royal Institution, Albemarle Street, London, W., took place on January 17. It was more than usually interesting, as Dr. T. E. Thorpe had arranged to lecture on "The Centenary of Davy's Discovery of the Metals of the Alkalies." The lecture-theatre was by no means crowded, but there were present many representatives of chemistry. The chair was taken by Mr. George Matthey, and among those present we noticed Lord Justice Fletcher Moulton, Sir William Crookes, Sir James Dewar, Sir James Crichton Browne, Professor H. E. Armstrong, Professor R. Meldola, Professor W. A. Tilden, Professor S. P. Thompson, Mr. G. T. Beilby, Dr. R. Messel, Mr. H. J. Helm, and Mr. E. Grant Hooper.

Punctually at nine o'clock Dr. Thorpe began his lecture, and in his well-known staccato style kept the audience interested till ten o'clock. Several lantern-slides were shown on the screen, while on the table were the Chantrey bust of Davy and some relics lent by Dr. Humphry Davy Rolleston, grand-nephew of Sir Humphry Davy, which were referred to during the evening. One hundred years ago last October, said Dr. Thorpe, there happened one of those events to which the term epoch-making could without cavil or question be fittingly applied. The managers had



SIR HUMPHRY DAVY.

therefore arranged that on the first possible occasion some suitable account should be given of a discovery from which such fruitful consequences have followed. The circumstances which led up to that cardinal discovery were partly connected with the Royal Institution and partly with the state of science in the early years of the nineteenth century. The discovery to which he wished to refer was that made by Humphry Davy in 1807—the isolation of the metals of the alkalies potassium and sodium. It was the eighth year of the existence of the Institution, which grew out of a proposal to help the unemployed with food and employment by devising heat and fuel saving appliances. This Dr. Thorpe quoted from the original prospectus, adding drily that like many other prospectuses this one failed to realise the hopes of its founders. The promoters decided that the Institute ought to stand alone, and not be affiliated with any other society. The objects, among others, were decided to be "to prosecute scientific and literary research, and to illustrate and diffuse the principles of inductive and experimental science and apply them to promote the comforts and conveniences of life." Accordingly, added

the lecturer, the original problem of the unemployed still remains. The Institution had a troubled infancy, and was literally in the throes of dissolution from lack of nourishment when the managers in 1801 appointed Humphry Davy, "a small, spare youth from Bristol," as director of the chemical laboratory at a salary of 100 guineas a year. Davy had been previously assistant with Dr. Beddoes at his "Pneumatic Institute" at Bristol, and had there investigated, among other matters, the characteristic properties of nitrous oxide. Count Rumford announced to the managers at the time that "he had purchased a cheap second-hand carpet and other furniture for Mr. Davy's room, including a new sofa-bed of a pattern which might usefully be imitated." Six weeks after Davy gave his first course of lectures at the Institution on galvanic phenomena, and he was among the score of experimenters by whom the study of voltaic electricity was taken up after Sir Joseph Banks had made Volta's discovery known in England. The "Philosophical Magazine" for 1801 thus referred to Davy's first course of lectures in London:

It must give pleasure to our readers to learn that this new and useful institution, the object of which is the application of science to the common purposes of life, may be now considered as settled on a firm basis. . . . We have also to notice a course of lectures just commenced at the institution on a new branch of philosophy, we mean the galvanic phenomena. On this interesting branch Mr. Davy (late of Bristol) gave the first lecture on April 25. He began with the history of galvanism, detailed the successive discoveries, and described the different methods of accumulating galvanic influence. . . . He showed the effects of galvanism on the legs of frogs, and exhibited some interesting experiments on the galvanic effects on the solution of metals in acid. . . . Sir Joseph Banks, Count Rumford, and other distinguished philosophers were present. The audience were highly gratified, and testified their satisfaction by general applause. Mr. Davy, who appears to be very young, acquitted himself admirably well: from the sparkling intelligence of his eye, his animated manner, and the *tout ensemble*, we have no doubt of his attaining a distinguished eminence.

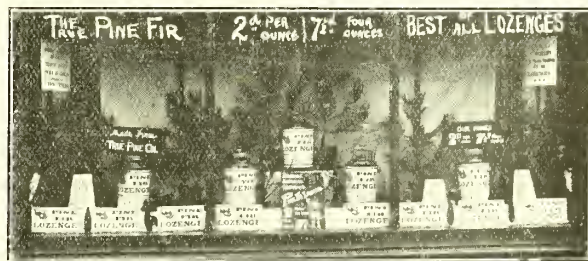
The next year Davy was appointed chemistry professor, a position he held till 1813, when he was made honorary professor, retaining this distinction till 1823. That the managers should entrust the fortunes of the Royal Institution to such a youth seemed like the desperate throw of a gambler. But they had formed a correct judgment of Davy. Through the influence of Beddoes Davy became acquainted with Maria Edgeworth and the coterie of literary men who lived at Bristol at the time. Asked at that time his opinion of Davy, in comparison with other men of science of the day, Coleridge replied, "Davy can eat them all." From his acquaintance with Watts, Wedgwood and Priestley he became known to Davies Gilbert, by whose influence he was brought into "that hotbed of human power called London." It was in 1801 that Volta invented his battery, and Nicholson and others at once applied it to the decomposition of water. Davy had experimented in this direction at Bristol. In 1801 Davy made his first communication on the subject to the Royal Society, entitled "An Account of some Galvanic Combinations formed by the arrangement of single metallic plates and fluids analogous to the new galvanic apparatus of Mr. Volta." In spite of distractions due to the precarious position of the Institution, he gradually accumulated the material for his first Bakerian lecture in 1806 on "Some Chemical Agencies of Electricity," in which he for the first time succeeded in unravelling the fundamental laws of electro-chemistry. In the late summer of 1807 he began to study the action of the Voltaic battery on the alkalies, and finished by isolating the metals of the alkalies. Bonaparte, when First Consul, had announced his intention of founding a medal "for the best experiment which should be made in the course of the year on the galvanic fluid." A committee of the Institute of France, consisting of Laplace, Halle, Coulomb, Hany, and Biot, was appointed to consider the best means of accomplishing the wishes of the First Consul, and twelve months after the publication of the Bakerian lecture they awarded the Napoleon medal to Davy with "the little brown head, like a boy," as Maria Edgeworth wrote. All the Institution got for themselves, as Miss Edgeworth also wrote, was "a rating

all round in Imperial Billingsgate," for the two countries were at this period at war, and the feeling of animosity was most bitter. Some people said that patriotism should forbid the acceptance of the award, but Davy looked at the matter more philosophically. He said that men of science of the two countries were not at war even if the Governments were, adding that he considered the award rather tended to soften the asperities of national hostilities. Dr. Thorpe here called attention to the Napoleon medal, which was on the table, and had a portrait of Davy at the age of twenty-eight projected on the screen. At this time Davy was reminded by the managers that the work he was doing did not have "a bearing on the comforts and conveniences of life," and was directed to give his attention to other matters. The lecturer then gave a short sketch of the steps which led up to the isolation of potassium and sodium. It had long been surmised that potash and soda would turn out to be compound substances; Nicholson, of Carlisle, and Henry, of Manchester, suggesting the application of the galvanic battery to the problem. It is thought that Davy had even applied the battery to this end at Bristol, but why he returned to it in London in view of discouragements is difficult to determine. He had hazarded the opinion that caustic potash might be composed of phosphorus and nitrogen or sulphur, but, as Davy himself once said, "analogy is the fruitful parent of error." It was on October 19, 1807, that he first obtained decisive results in the decomposition of potash, as is recorded in his own handwriting in the laboratory journal, which has been preserved by the pious care of Faraday and is one of the most precious of the historical possessions of the Royal Institution. The journal was on the lecture-table, but a lantern-slide was also shown, the writing being read out by Dr. Thorpe. On November 19 Davy delivered the most memorable of his Bakerian lectures to the Royal Society on the decomposition of the fixed alkalies. Few more momentous lectures have ever been delivered, many further particulars regarding the metals being given. His cousin, Edmund Davy, who was Davy's assistant in the laboratory, describes the great mental excitement under which Davy laboured at that time. When he first saw the globules of potassium in the laboratory experiment Davy's joy knew no bounds; he danced about the room in ecstasy. When he had somewhat composed himself he sat down and penned the memorable entry in the laboratory journal. He employed a battery of twenty-three plates of copper and zinc 12 in. square, 100 plates 6 in. square, and 150 plates 4 in. square. The potash was first tried in aqueous solution without success, but by placing the moistened potash on a platinum plate he obtained "tiny globules of potassium of high lustre like quicksilver." One of the actual batteries employed was here shown. Davy noticed that the potassium was fluid at the ordinary temperature, which seems to show that the potash he used was impure from the presence of soda, the lecturer pointing out that an alloy of potassium and sodium is fluid at 60° F. Davy found that the metallic potassium acted on everything to which it was exposed, but that it could be preserved in mineral naphtha. He took the specific gravity, and found that potassium was the lightest solid known at that time. Dr. Thorpe then referred to the controversy which took place as to whether the new substances should be called metals, and then spoke of the illness which almost immediately attacked Davy and nearly proved fatal. He was confined to his bed for nine weeks, and so great was the interest in the distinguished patient that bulletins were posted daily in the hall of the Institution. The concluding part of the lecture was an indication of the outcome of this great and fundamental discovery. Sodium, the more economical of the two metals, is made to-day by thousands of tons, and by a process in principle identical with that by which it was first made by Davy—the electrolysis of fused caustic soda. Various other processes have been tried, but manufacturers have got back to the original process, made industrially possible owing to another of Davy's discoveries—Michael Faraday. There is yearly produced a total of 5,000 tons of sodium. By Hamilton-Castner's process caustic soda is made by the electrolysis of sodium chloride, which is then decomposed by a continuous process in iron vessels mounted in brick-work. The sodium, which floats on the surface, is re-

moved by the workmen by means of a gauze spoon, and the melted sodium cast in blocks of the size of building-bricks. These are packed in square air-tight drums holding from 6 to 7 cwt., the drums being protected by an outer cover of wood. Photographs of the sodium-works at Wallsend, and at Weston Point, Cheshire, were shown on the screen, as well as views of factories in France and Germany. Sodium is used largely in the manufacture of sodium cyanide, employed on a large scale in the extraction of gold, which is the principal material "in providing the comforts and conveniences of life" and in other important processes. A quarter of a century ago sodium was a rare metal; in 1890 it was sold at 8s. per lb.; now it is 8d. per lb., taking rank with zinc, tin, and copper as an ordinary metal of commerce. Dr. Thorpe gave a picturesque description of his visit to Wallsend, where by the side of the old walls, emblem of the older order, he saw another civilisation, ampler and more lasting. The workmen wear a kind of headress with holes to see through, and have a curious appearance in the intense yellow light which is given off from the sodium. The lecturer likened them to Knights Templars performing on a Gargantuan scale the experiment first made on such a small scale in the cellars of that building. It is gratifying, he concluded, to know that it was from the genius and labours of Davy and Faraday, two professors of the Institution, that the astonishing development of the application of electrical energy which characterises the present age has taken its rise.

Chemists' Windows.

Contributed by "C. & D." Subscribers. The Editor will be glad to receive photographs of effective window-displays for inclusion in this section. Notes on the displays should accompany the photographs. We pay for what we use.



A Seasonable Display.

MR. J. CLEWORTH, 56 Ducie Street, Greenheys, Manchester, writes as follows in regard to the above lozenge display:

As a background I had six pine fir trees growing in plant-pots, and the whole of the bottom of the window was covered with fir-cones (which a friendly traveller sent me from Cumberland), and just in the front of the window are four of the biggest cones, measuring nearly 6 in. long. I had some telling self-made showcards, and the prices bold and clear. The showcard on the left reads:

FOR YOUNG
AND OLD
THEY DEFEY
FOG AND COLD.
TRY THEM.

The one on the right reads:

CLEANEST,
PUREST,
AND MOST HEALING
OF ALL
LOZENGES.

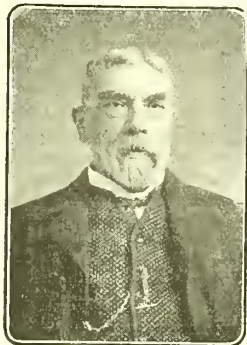
Of course, one has to be very careful not to make any of the showcards liable, as the lozenges are sold loose (by the ounce, and unstamped). As the profit was good and the sales were large, being a popular price, I can recommend brother-chemists to go and do likewise.

AN ARRANGEMENT regarding the importation of medicinal preparations similar to that between Italy and Switzerland (*C. & D.*, January 11, p. 42) has been agreed upon between Italy and Germany.

Winter Session of Chemists' Associations.

Association Presidents.

MR. C. B. BELL, the newly appointed President of the Hull and District Chemists' Association, after serving his apprenticeship partly in York and partly in Hull, commenced business for himself in March 1861 at 6 Spring Bank, the premises which he still occupies to-day. In 1863, when a branch of the United Society of Chemists and Druggists was formed in Hull, he became assistant secretary and then secretary, which post he held until 1866, when he was made President, and filled that office for twelve months. The Society ceased to exist in 1868, and in the same year Mr. Bell, along with three others, since deceased—namely, Messrs. James Burn, Anthony Smith, and Wm. Staning—met and formed the Hull Chemists' Association, which now reaches its fortieth year. The newly formed Association set vigorously to work, and there were some excellent meetings, the late Mr. Baynes (father of the present city analyst), Mr. Anthony Smith, Mr. Geo. Myers, and Mr. A. Pickering being conspicuous. For three years Mr. Bell was President of the Association, and during the whole of its existence held office either as President, Secretary, or Treasurer. In 1871 he was presented with a silver cup and salver by the Association as a token of esteem. Since 1872 Mr. Bell has also acted as a local or divisional secretary for the Pharmaceutical Society. For twenty years Mr. Bell served as a guardian of the Hull Incorporation of the Poor, and in 1894 filled the Governor's chair. He was also for many years on the Hull Guardian Society.



MR. C. B. BELL.

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Leicester Chemists' Association.

An effort is being made in connection with this Association to bring into existence a kind of exchange of "dispensing unusualities," and in furtherance of the idea the Secretary, Mr. G. E. Marfitt, has issued a circular asking all members to furnish him with a list of broken bulk proprietary medicines or out-of-the-way or little-used drugs which they would be willing to dispose of to their fellow members. The idea is that the Secretary can inform any member where he can obtain in the town a small quantity of some of the unusual things that are required.

Edinburgh C., A., and A. Association.

A MEETING was held in the Pharmaceutical Society's house, 36 York Place, Edinburgh, on Wednesday, January 15, at 9.15 P.M., Mr. David Murray (Vice-President) in the chair. The evening was devoted to a study on barks, the Chairman giving two papers—viz., "The Growth and Functions of Barks" and "The Constituents of Barks"; while Mr. J. F. Cunningham contributed one on "The Uses of Barks." An ambulance-class will be commenced shortly, and members are invited to send in their names to the Secretary, Mr. Elliot, 6 North Bridge.

Peterborough Chemists' Association.

At the annual general meeting held at the Grand Hotel, Peterborough, on Thursday, January 16, the following officers were elected for the ensuing year:

President: Mr. W. R. Girling, Wisbech.

Vice-President: Mr. T. M. Baxter, Bourne; Mr. J. E. Saunders, Peterborough; and Mr. H. Barton, St. Ives, Hunts.

Council: Messrs. J. W. Bodger, T. J. Calcutt, L. R. Dalglish, F. Oldham, H. E. Noble, Frank A. Sturton, and H. S. Turner.

Hon. Treasurer: Mr. J. E. Saunders.

Hon. Solicitor: Mr. W. H. Sturton.

Hon. Secretary: John W. Hall.

The Hon. Treasurer's statement of accounts and the Hon. Secretary's report for the year were presented and approved.

The following new members were elected: Mr. Gibbons Woodstone, Peterborough; Mr. Matthew Herrod, Wisbech; and Mr. Major Hill, Wisbech.

Bournemouth Pharmaceutical Association.

THE usual monthly meeting was held at the Gervis Hall Restaurant on January 17, Mr. C. F. R. Pars in the chair. Also present were Messrs. Hardwick, Bilson, Rose, Hornby, Patrick, Church, Head, Botham, Reid, Boyle, and Bingham (Hon. Secretary). It was decided to send a delegate to the forthcoming conference of the Pharmaceutical Society's secretaries to be held at Bristol. A long discussion took place on Sunday and early closing, the feeling being unanimous that there is considerable room for improvement. Mr. C. J. Reid (Hon. Treasurer) was appointed to ascertain the views of all the members of the Association and report to the committee for consideration.

North Kent Chemists' Association.

A MEETING of this Association was held at the Royal Mitre Hotel, Chatham, on January 15. In the unavoidable absence of the President, Mr. A. J. Wing (Woolwich), Mr. A. Goldthorpe (Plumstead) presided. There were also present Messrs. R. T. Clarke (Westmoreland), W. L. Towers, J. E. Lincoln, W. G. Wells (Maidstone), Kenney, Beveridge, J. J. John, and Mr. T. M. Chesterfield (New Brompton), who, in the absence of the Hon. Secretary, undertook the secretarial duties.

Before proceeding to the general business, Mr. Goldthorpe made very feeling reference to the severe domestic bereavement which the Hon. Treasurer, Mr. A. Stooke (New Brompton), had sustained in the death of his wife, and the Hon. Secretary was instructed to write a letter to Mr. Stooke expressing their condolence. Mr. Goldthorpe further informed the meeting that a suitable wreath had been sent for the funeral in the name of the Association.

THE CHEMISTS' UNION.—A discussion then took place upon the paper read by Mr. J. W. Johnston at the last meeting at Woolwich, which was sustained with much animation, Mr. Goldthorpe more fully explaining some of the details. It was eventually decided that Mr. Johnston's scheme was worthy of their consideration and support.

Other matters of interest were debated, Mr. Wells, calling attention to the disadvantage attaching to the craft, when persons convicted of offences against the Pharmacy Acts were described as chemists when they were not on the register.

Leicester Pharmacy Athletic Club.

THE annual general meeting of this club was held at Winn's Oriental Café, Leicester, on January 8. The President (Mr. F. J. Brett) occupied the chair, and there was a good muster of members.

ANNUAL REPORT.—MR. A. E. Young, Hon. Secretary and Treasurer, in presenting his report of the last season, stated that 1907 had been one of improvement, both as regards cricket and finance. Seventeen matches had been played, of which seven had been won, five lost, one tied, and four drawn. Three others had to be abandoned through rain. Financially there is a balance in hand to the good of 2*l.* 1*s.*, instead of a deficit, as was the case at the end of the previous season. This is, however, principally due to the profit on the two whist-drives that had been promoted by the club. Prizes have been offered by the President for batting, and Mr. Bradley for bowling, which the committee gratefully acknowledged. The batting and bowling averages were then read, from which it was seen that the batting-prize has been won by Mr. C. A. Forryan with the very excellent average of thirty-two runs for each completed innings; and the bowling-prize by Mr. J. H. Miles, who has taken forty-seven wickets at a cost of only 4.7 runs each. The batting-average for the whole team worked out for the season through at 10.18 runs each man, while that of the opponents was 8.69. The report was unanimously adopted.

ELECTIONS.—The following were then elected as office-bearers for the season 1908:—*President*, Mr. F. J. Brett; *Vice-Presidents*, Messrs. S. F. Burford, F.C.S., H. W. Clear, S. E. Cleaver, E. A. A. Fry, F. W. Goodess, A. D. Hearnshaw, G. E. Marfitt, E. H. Wand, E. B. Ward, and G. J. B. Woolley, J.P.; *Captain*, Mr. E. Tomlin; *Vice-Captain*, Mr. H. Chawner; *Hon. Secretary*, Mr. A. E. Young; *Hon. Treasurer*, Mr. B. C. Jones; *Committee*, Messrs. Clear, Fry, Marfitt, Martin, Miles, Peberdy, and Smith.

One or two of the rules were amended after a little discussion, chiefly in regard to subscriptions. Votes of thanks were also accorded to the President (Mr. F. J. Brett), the Hon. Secretary, and the retiring Captain for the conscientious manner in which they had discharged their duties. All three suitably responded.

Exeter Association of Chemists and Druggists.

A MEETING of this Association was held on January 20 at the residence of the President (Mr. J. Harris), who presided, there being also present Messrs. P. F. Rowsell, D. Reid, F. W. Vinden, J. W. Lake, E. Lemmon, and H. Wippell Gadd (Hon. Secretary).

THE B.P. CODEX.—The meeting discussed at some length the question of the British Pharmaceutical Codex, and, on the proposition of Mr. Rowsell, seconded by Mr. J. W. Lake, it was resolved that a joint meeting of the medical profession with the Chemists' Association be held, if possible, in the Guildhall; that the Mayor (Alderman H. Gadd) be asked to preside at the meeting; that the Hon. Secretary be asked to read a paper on the subject of the Codex; and that the President of the British Medical Association (Dr. Henry Davy) be asked to speak on the subject.

REMINGTON PRIZE.—In regard to a competition for a prize presented by Messrs. Burroughs Wellcome & Co., it was resolved that the President and Mr. Aplin be asked to set the paper, and that Mr. T. Tickle and Mr. Alan H. Ware be asked to supervise the examination.

THE SALE OF POISONS.—Mr. David Reid introduced the question of the attitude of the members as regards the sale of poisonous substances which are not scheduled, instancing in particular bitter apple and lead plaster. He pointed out that it is often invidious for a chemist to suggest that such a drug is required for any improper purpose when it has a legitimate use.—After some discussion it was resolved that at the forthcoming meeting of the Pharmaceutical Society at Bristol it be recommended that these substances should be added to Part 1 of the Poisons Schedule, and that the officers of the Society be asked for advice as to the proper attitude of chemists pending such addition. The Hon. Secretary was appointed a delegate of the Association to the Bristol meeting.—A short discussion then took place in regard to the Pharmaceutical Society's "Journal," and the proceedings concluded with a vote of thanks to Mr. and Mrs. Harris for their hospitality during the evening.

Liverpool Chemists' Association.

A MEETING was held on Thursday evening, January 16, at the Royal Institution, Mr. J. T. Hornblower (President) in the chair.

MISCELLANEOUS COMMUNICATIONS.—The President referred to the specimen of guarana he had recently exhibited, and mentioned that it had been presented to the museum of the Association by Messrs. Evans Sons Lescher & Webb, Ltd. Mr. Prosper H. Marsden said he had seen a specimen in the shape of a frog and a serpent. It was called guarana bread, and was made of a fine paste of the seeds, being forced into moulds of different shapes. It was not actually the fruit.

A TRIP TO NORWAY.—The President then called on Messrs. F. J. Parker and G. G. Hemingway for their lecture, "Two Chemists on Holiday in Norway." This was an account of a recent holiday tour up the Norwegian fiords, and was fully illustrated by lantern-slides. Starting from Grimsby, the cruise extended well up into the Arctic Circle, where some very fine plates of the midnight sun were obtained. These were shown and were heartily applauded. Views of Laplanders and a herd of reindeer were much appreciated, also some extraordinary sunset effects. Speaking of

the voyage generally, the lecturers confidently recommended it, as affording an opportunity of getting entirely away from business cares and giving a complete change in living. The weather was pleasant—in fact, at times, warm—and the sailing delightful, as it was all in protected waters, hardly a ripple being raised, no matter how strong the wind might be blowing. The only drawback is the fogs, which, at times, were very dense; but the lecturers were very fortunate, as they were only in a fog-bank for about two hours during the whole of the trip. The scenery was magnificent, nature being very wild and rugged, and this was borne out by the very pretty slides thrown upon the screen. The President, in proposing a vote of thanks, told how much he had enjoyed the lecture, and he hoped other members would bring forward holiday experiences, as they were much appreciated. Mr. Prosper H. Marsden, in seconding, dwelt on reminiscences and experiences of a trip he had previously undertaken to Norway. Messrs. Shacklady and Robinson having supported, Messrs. Parker and Hemingway replied, and the proceedings terminated.

Chemists' Assistants' Association.

A MEETING was held at 73 Newman Street, W., on January 16, the President (Mr. W. G. Northey) in the chair. A paper on

DIGESTIVE FERMENTS

was read by Mr. C. W. O'Callaghan, who treated the subject from the pharmaceutical standpoint. This distinct class of agents, he said, which bears little analogy to drugs and chemicals, is not known to exert any action in the body other than that concerned in the conversion of food substances into soluble and absorbable forms, and by this action alone are we able to recognise the digestive ferments and determine their presence. Reference was made to the impression which exists in many minds that there are peculiar difficulties attending the practical use of these ferments, which is largely due to the mistaken deductions from many of the experiments which have been carried out. Nevertheless, the fact remains that the digestive ferments may be prescribed with the same certainty as drugs and chemicals and with as little difficulty as regards incompatibility. The lecturer discussed the uses of the digestive ferments under four headings:

1. As peptonising-agents: for the digestion of food artificially.
2. As therapeutic agents: remedies in dyspepsia.
3. As surgical solvents: for effectually dissolving diseased tissue, pus, diphtheritic membrane, etc. The hypodermic use of trypsin was mentioned as an illustration of a surgical solvent.
4. For the preparation of artificial human milk.

In the preparation of artificially digested food it was pointed out that the relation of temperature to the ferments is of the greatest importance, since, by carefully regulating it, we are able to hold them in a latent state, bring on energetic action, or destroy them permanently at any stage. They are capable of setting up, under proper conditions, a chemical action between certain substances, of which the latter are incapable in the absence of the ferments. They are also capable of converting into solution many thousand times their weight of food. The proteolytic ferments, when used topically, possess the power of dissolving albuminous morbid matter, such as varicose ulcers, blood-clots, pus, broken-down tissue, etc., the heat of the body being sufficient for the satisfactory working of the ferment. Water is essential to the action of digestive ferments, and therefore in a dry form they retain their powers permanently, and as such may be dispensed with substances which they could not be dispensed with in solution. Thus dry pepsin is not injured by sodium bicarbonate. It may be said that all the mixtures of gastric and pancreatic ferments in solution are quite devoid of the ferments they are said to contain, after a certain time, since it is impossible to prepare a menstruum suitable for the solution and preservation of mixed ferments of the pancreas and stomach that will keep for more than two or three weeks. Mr. O'Callaghan also stated that pepsin and bismuth in solution, whether acid or alkaline, are quite valueless as regards any pepsin value, while, on the other hand, pepsin with the insoluble salts of bismuth is one of the most efficient methods of administering

these drugs. From experiments which had been carried out upon fluid preparations containing gastric and pancreatic ferments mixed together, it had been ascertained that pepsin, in a slightly acid medium, gradually destroys pancreatic ferments. Also that trypsin in a neutral solution destroys pepsin, while in an alkaline solution it not only destroys pepsin, but the latter is instantly destroyed by the mere fact of the alkalinity. The action of pepsin, it was pointed out, is by no means inseparably associated with hydrochloric acid, as it acts freely in a wide range of acidity with both mineral and organic acids. It digests but one class of substances—proteids, all forms of which it is capable of converting into peptone. Trypsin, one of the principles of pancreatic juice, may be called the analogue of pepsin, in that it is capable of converting all sorts of proteid substances into peptone. It differs from pepsin in important particulars. Whilst it is most active in an alkaline solution, it is also energetic in a neutral solution and digests milk freely without the addition of an alkali. In a feebly acid solution, especially with organic acids, it is found to act on fibrin and albumen. Diastase, the starch-digesting principle of the pancreatic juice, which converts gelatinous starch into soluble starch, dextrins or glucose, and lipase, the emulsive ferment, were also dealt with. To demonstrate the action of the latter it was suggested that the experiment of macerating a fat or oil with fresh pancreas juice should be tried. This is allowed to stand for a few hours at body temperature; on the addition of an equal quantity of water, the pancreatised fat will instantly form a thick, creamy emulsion on shaking.

At the conclusion of the lecture there was a discussion, in which Messrs. W. G. Northey, Crossley, Holland, and Thompson took part, and Mr. O'Callaghan was heartily thanked.

Leeds Chemists' Association.

WE referred last week to the paper read by Mr. J. H. Beacock before this association on January 15. The following are some of the points from the contribution, which was entitled

CHEMISTS' OWN PREPARATIONS.

After some preliminary remarks emphasising the advantages to chemists of putting up their own specialities, Mr. Beacock particularised some of the articles which he had found successful.

In regard to *German Foot-powder*, he has found the recipe given in Martindale's "Extra Pharmacopœia" excellent; it contains salicylic acid, starch, and talc. Mr. Beacock gave some interesting personal experiences of the use of this article and endeavours he had made at various times to obtain a foot-powder at chemists' shops when on walking tours at home and abroad.

Menthol Snuff.—This he makes with or without cocaine, and finds he can get a better price and work up a better sale for it because it is his own manufacture.

Witch-hazel Foam.—The recipe for this contains stearic acid, sod. carb., glycerin, witch-hazel, and water. This made a preparation quite equal to any of those advertised, and the chemist can call it his own, and at the same time, knowing its strength and of what it is made, can better recommend it to his customers. His plan is to put up samples of the article. These sell very satisfactorily, as people will sometimes buy a sample when they will not risk buying a large bottle of anything. When the seller knows an article is good and will please, this is quite a safe plan.

Health Salts.—A simple thing like this can be made and packed with little trouble and expense. He had found a much better sale for it since he started buying the empty tins and making health salts and packing and labelling the article himself. He kept a parcel of tartaric acid at the top of the shop for use in this article. If a cheaper line is also required it can easily be made, and, in any case, better prices can be obtained for one's own make.

Tooth-powder.—Carbolic tooth-powder is an article much in demand, and it is better to get a neat label printed and pack the powder oneself. Tins are cheap, and a label can easily be affixed with white hard spirit-gum. One's own label gives it a distinction which is hardly obtainable in a ready-packed article. The Americans have been packing a

white tooth-powder for some years past. He has found one containing mag. carb., calc. carb. precip., soap, etc., to sell well.

Neuralgia-powder.—This is an article often required, and a sale can soon be obtained for something smaller in value than neuralgia mixture, which most chemists make. Phenacetin is often supplied, but a very good formula is quin. salicylas, phenacetin, and caffeine, which, besides being an excellent remedy, is one for which a better price can be obtained than the usual penny powder.

Confection of Senna.—This is a line often packed very attractively at the stores. It is only recently he had started to pack it in a tall white jar with celluloid top. Since packing the confection he had found that instead of having it in a chip-box the public ask for it in a jar.

Cold Cream.—This is an article which was in great demand in his apprenticeship days. The only one sold at that time was Patey's. When he went to London the cold cream was made with spermaceti, wax, oil of almonds, otto, and water, but ordinary oil of almonds does not make a very white preparation, so bleached oil of almonds was employed. After that vaseline cold cream came on the market, and it was a white preparation. In another town where he was an assistant liquid paraffin was used in place of oil of almonds. This, with a little borax to the water, made a cold cream that sold well and pleased all customers. He found the formula used in London and the provinces about the same—2 oz. each of white wax and spermaceti to 16 oz. oil, the amount of water varying from 4 oz. to 8 oz. As regards the perfume, in London he had employed 60 drops of otto of rose to the 20 oz., but this makes it rather expensive. Bergamot, lemon, and otto make a nice perfume, and when a cheaper article is required a perfume of bergamot, lemon, and rose-geranium does very well.

Back and Kidney Pills.—Owing to extensive advertising, a greater demand has grown for a backache remedy in pill form. As an apprentice he sold drops consisting of turpentine, sweet nitre, and oil of juniper. Later, when an assistant, a mixture known as "Waller's" was in demand. More recently they had sold ammoniated tincture of guaiacum and sweet nitre, equal parts to be taken in gin, also red bottle. Something more portable is now required. A good formula is one containing pot. nit., juniper, buchu, and a little podophyllin.

Ung. Methyl. Salicylat.—This contains 12½ per cent. methyl salicylate, 2½ per cent. menthol, 2½ per cent. eucalyptus, 2½ per cent. ess. oil camphor, 25 per cent. of hydrous wool-fat, and paraffin ointment to 100, and is recommended for sciatica, lumbago, and rheumatism. Mr. Beacock gave some personal experience of the value of oil of wintergreen in rheumatism—the effect is really wonderful. He has sold a large quantity of the above ointment. If a stronger preparation is required he recommended lin. betulae co., which contains menthol, eucalyptus (5 per cent.), essential oil of camphor (10 per cent.) and methyl salicylate (25 per cent.). As a liniment it will bear dilution with one or two parts of olive oil. Equal parts of wintergreen oil and olive oil is good. Elixir of ammoniated quinine, linseed, liquorice and chlorodyne lozenges, and aromatic castor oil were other articles dealt with.

In the discussion which followed Mr. Worfolk criticised various points, and expressed disagreement with the suggestion to use paraffin in cold cream. Mr. Pollitt advocated chemists taking up a chilblain liniment as a thing likely to sell. Mr. Yewdall and Mr. Bentley also spoke. As a penny tic plaster belladonna was recommended by one speaker. The President was surprised that essential oil of camphor has not been more largely used in liniments.

A hearty vote of thanks was given to the author of the paper.

ON TOUR.—Among the passengers on board the P. & O. s.s. *Macedonia*, bound eastwards, arriving at Colombo on December 29, were Sir Samuel Sadler, of Middlesborough, and Lady Sadler, and Sir Joseph W. and Lady Swan.

LEMONGRASS OIL.—The cultivation of lemongrass has been recently started in the Toungco district. The grass grows all over Burma wherever the land is free from weeds, and the production of the oil is neither complicated nor expensive. It is also being more and more used in Burma itself as a preventive of mosquito-bites.

James Petiver, F.R.S., Apothecary.

This article (written by an eminent chemist and pharmacognosist) has topical interest in view of the recent publication by Mr. Alexander P. Stevenson of a monograph on Dr. Patrick Blair, surgeon-apothecary, Dundee, a distinguished botanist who was befriended by Petiver. Blair was the first man in Scotland to dissect an elephant, and he sent an account of the animal's anatomy to Sir Hans Sloane, at that time Secretary to the Royal Society. Petiver was a co-worker with Sloane, and got into correspondence with Blair; the letters which passed between them now form part of the Sloane MSS. in the British Museum. Blair was elected a Fellow of the Royal Society in 1712. He visited London in the following year, and saw much of Sloane and Petiver. In 1715 Blair became involved in the Jacobite rebellion, was arrested, taken to Newgate, tried for treason, pleaded guilty, and was sentenced to death. Petiver and Sloane secured his pardon. Blair afterwards practised medicine in Boston, Lincs, where he died.—EDITOR C. & D.

IF we may take it for granted that the contents of a druggist's shop constitute the nucleus of a museum, we need not wonder at a druggist, occasionally, in his leisure hours, amassing a collection of natural-history objects and making himself an expert in some department of that science. We have a few notable instances of this kind at the present day, and it may be of interest to record a sketch of an apothecary of two centuries ago who made himself famous more by his hobby than his profession.

James Petiver, of London, was an eminent naturalist towards the close of the seventeenth and the beginning of the eighteenth century. He was born at Hillmorton, near Rugby, and was educated at Rugby School, on the register of which his name appears. Proceeding to London, he was apprenticed to a dealer in medicines of that day known as an apothecary. Having duly qualified himself by study and practice as an apothecary, he established himself at the White Cross, near Long Lane, in Aldersgate Street, where he conducted a remunerative business. It has been insinuated that his fortune was built up on the sale of "quack nostrums," but there is nothing to show that he did not administer his business on the improved and enlightened methods of the times. Be this as it may, he was in 1695 deemed worthy of the honour of being elected a Fellow of the Royal Society. In the years following his election he devoted himself almost entirely to natural science, and commenced an active correspondence with naturalists and travellers in many parts of the world, with whose assistance he gradually formed a museum of many thousands of objects.

Petiver's museum must have been superior to those of that miscellaneous character, specimens of which made their appearance in England and the Continent in the seventeenth century. Bones of elephants, corals, fossils, plants, animals, and rocks were brought together more as curiosities than with the idea of systematic classification. An exhibition on Ludgate Hill about this time is thus described:

Where Crocodile, Rhinoceros, and Baboon
With other Prodigies are daily shown.

Petiver described his collections in various publications between 1695 and 1717, of which the following are known: "Museum Petiverianum," London, 1695-1703; a work in ten centuries, each describing 100 plants, animals, or fossils. "Petiveriana," London, 1716-17. A "Compleat Volume of the Memoirs for the Curious," London, 1710. "The Philosophical Transactions," xx. (1698) to xxvii. (1710-12). Petiver also published "Brief Directions for the easie making and preserving Collections of all Natural Curiosities."

Among the contributors to Petiver's museum were Frederick Ruysch (1638-1731), the great anatomist of Amsterdam, who sent various reptiles and insects; and Johann Georg Kisner, of Frankfort, an authority on fossils. Petiver was a voluminous writer on botanical subjects, and travelled a good deal in England and in Northern Europe in search of specimens and information. His name is commemorated by Plumier in the genus *Petiveria*, tropical American plants, now taken as the type of the order. He

was also long associated with the Botanical Gardens at Chelsea.

A specimen of one of Petiver's communications to the Royal Society in 1708 is given by Daniel Hanbury in his historical article on "Storax." The paper is entitled "The Manner of making *Styrax liquida*, alias *Rosa Mallas*," and is distinguished by its brevity. Hanbury soon discovered that inaccuracy was intimately combined with its brevity, and proceeded to show the fallacies of the statements made and to reveal "the traces of truth it contains," especially with regard to the geographical origin of the drug.

The following two letters indicate some of the difficulties Petiver had to contend with in obtaining his specimens. They have recently appeared in a Madras paper, but the correspondent seems to be quite unknown in Indian history.

Fort St. George, February 24, 1699.

Mr. J. Petiver,

SIR,—Yours by Mr. Demony have received by way of Bengall with a Box of Medesines, Bookes, etc., all very much damaged and some wanting as appears by Doet: Bulkley enclosed Account who had opened and taken account of them before ever they came to my hand as supposing they belonged to him. They were very ill put up and worse looked after were opened in Bengall and for want of persons care who was entrusted with them very much abused in coming from thence besides what taken out neither did Mr. Demony send any letter with them.

I heartily wish it lay in my power to Serve you in those things you wrote to Mr. Brown (whose widow I have married) but my employ is another way however what come to my hands shall send you as I now doe a letter Father Camille to Mr. Brown with a Booke of Plants and another writ in Latin with some Roots etc. which is the Needfull from Yo Must hum. Servt.

M. FOQUETT.

The second letter is from a traveller in Cadiz, of the not uncommon name of Jones. It could never have come under the notice of the writer of the sketch of Mr. Petiver in the "Dictionary of National Biography," or he would not have hazarded the statement that the learned "apothecary" never married.

Cadiz, April 2nd, 1701.

DEAR MR. PETIVER,—The place I am in is in great confusion and the Spaniards are so ill natured upon the rumours of a warr that a Stranger especially an English cannot tell how to pleas them. I have been suspected for one that studys witchcraft, necromancy and a Madman by some who observed me following butterflies picking of herbs and other lawful exercises and I have had much to do to escape the censure of higher powers. I am detained here for want of a Ship and at last must Freight one for 50 Crowns, which I hope will carry me in two days hence for I intend to embark to-morrow for Tettuan. Here was no Spring when I came, ye cause was want of rain which has fallen plentifully since. The Man of Warr is just a goeing, by ye Captain Mr. Fairborn, who knows Mr. Southwell. I send to Dr. Sloane and you a collection of Cadiz Plants gathered in ye Campo Santo to be doing till I send you the rest. You must plead my cause for not sending my journal, and incite all worthy people to Charity or else I shall starve in Foreign Land, if I do not live upon the plants I gather for the doctor and you. You must also excuse me to the worthy Mr. Charleton, Dr. Sherard, etc. And I wish that you would assure my Ld Bishop of London and Mr. Cha. London to whom I shall write when I am on the other side, as also Mr. Dubois, that I have got some Bulbs to send to them of Iris's which you have specimens of now. Pray deliver ye enclosed to yr Lady into her own hands and believe me always in yo interest for I am Sir Your most faithful humble Servt.

JEZREEL JONES.

I am obliged to write upon my knee for the English have put all their goods into consients and shipped them off. Brown paper costs me a dollar a Ream. My humble Service to all Friends.

James Petiver died at his house in Aldersgate Street in 1718, when about fifty years of age, and was buried in the chancel of St. Botolph's Church in that street. Six physicians acted as his pall-bearers, including his intimate friend and collaborator Sir Hans Sloane, and the physicians of the Charterhouse, of which Petiver was apothecary. His books and collections were purchased of his executors by Sir Hans Sloane, and eventually his manuscripts and herbarium were acquired for the British Museum.

Burmese Pharmacy.

By A. SERCOMBE GRIFFIN.

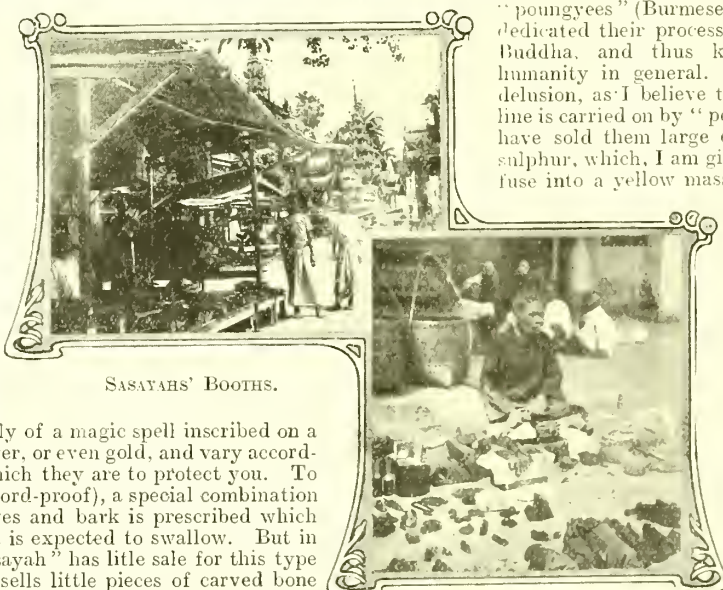
IN the main thoroughfare of the city of Rangoon is an up-to-date pharmacy with the latest novelties in appliances, perfumes, and new drugs from London, Paris, and New York. In the shadow of the Shwe Dagon Pagoda, not half a mile away, sit the representatives of Burmese medicine that upheld the banner of pharmacy long before these British pharmacies were even thought of. And lest in the rush of civilisation these Burmese "sasayahs" should die the death of all those who cling to customs prehistoric and drugs ancient, it were well for us to have a glance at their methods and a glimpse of their stock-in-trade. These "sasayahs" almost invariably come from up-country—the Shan States. Their profession is almost a question of heredity, the secrets of the craft being handed down from father to son. Often husband and wife are in attendance at the stall where the medicaments are displayed, and the woman is very often the worker while the gentle snores of the husband proclaim him a sleeping partner.

Up-country these Shan chemist-doctors do a roaring trade in the selling of charms. For three rupees (4s.) you may become "thaynat pyee" (gun-proof), the charm being generally a tiny ivory figure of Gaudama (Buddha) about the size of a small bean. These are usually inserted under the skin, where they appear like abnormally large warts. The

charm may consist simply of a magic spell inscribed on a small piece of ivory, silver, or even gold, and vary according to the peril from which they are to protect you. To become "dah-pyee" (sword-proof), a special combination of powdered dried leaves and bark is prescribed which the unfortunate patient is expected to swallow. But in Rangoon itself the "sasayah" has little sale for this type of charm, and instead sells little pieces of carved bone threaded on a string, to be worn round the neck as a preventive of cholera, plague, smallpox, fever, etc.

Most of these pagoda "pharmacies" are lightly-built wooden booths, the floors of which are raised from the ground a couple of feet. A series of these booths is shown in the first illustration. The sasayahs are very proud of animal relics: an elephant's tusk, a tiger's claws, an alligator's tail, a deer's horns, a buffalo's skull give to their individual stalls the prestige that the coloured carboys give to an English pharmacy. Among the materia medica we find such things as gentian, chiretta, yellow sandalwood, galls, cloves, aniseed, fenugreek, senna, asafetida, cuttlefish, and "thanaket." This last is the term used for the yellow powder with which the natives powder their faces, and which appears to be made of several barks and woods finely powdered, and perfumed with sandalwood and another wood which possesses a smell like lavender. I had a little argument with an old tattooed sage about this lavender-scented wood. I told him he had added perfume to an absorbent wood, at which he was very indignant, and split open another block for me to test with my olfactory senses.

A very profitable side-line is in the sale of false hair. This is purchased by the Burmese beauties, who do not scruple to take down their hair in public, deliberately detach the false hair, and placidly comb it out as they squat on the ground. Rubies from the ruby-mines and elsewhere (I mean by the latter artificial stones) are also sold by these sasayahs, and praying beads for Buddhist worship are also among their wares.



SASAYAHS' BOOTHS.

SHAN PHARMACIENNE.

The good dame whose portrait I snapped, and whom I may call a Shan pharmacienne (see second picture), had on her stall an alligator's tongue prominently displayed. What its particular virtues are I could not discover. She had also a number of queer-looking black rings, which, I learnt, were made of the stiff hairs from the end of an elephant's tail. These are supposed to have marvellous curative powers when worn on the little finger. A number of herbs and roots are known to these sasayahs which they regard as specifics for certain ailments. Research among these native drugs might repay one in the discovery of new remedies. I was chatting on this topic with an up-to-date Burmese doctor (Calcutta degree); he contemplated tabulating native materia medica, certain items of which he had proved to be of great service, but dosage is an item which needs standardisation, as these sasayahs have no idea of doses, which lack of knowledge leads to surprising results sometimes. This Burmese doctor, though cognisant of the latest details in bacteriology, had a firm belief in certain of the sasayah's charms. He believed, too, that there were men in Burma who had discovered the great secret of transmuting baser metal into gold; but he explained that this discovery had been made by "poungyees" (Burmese Buddhist priests), who dedicated their process of manufacture to the Buddha, and thus kept the secret from humanity in general. I did not combat his delusion, as I believe that research along this line is carried on by "poungyees," and I myself have sold them large quantities of nitre and sulphur, which, I am given to understand, they fuse into a yellow mass and use to give their pagodas a golden appearance.

"Oily-lamp root" is a mysterious article which I have vainly endeavoured to procure. It was largely used by Dacoits prior to the British annexation. When allowed to smoulder it is said imperceptibly to render a whole household unconscious in a very few minutes. These sasayahs were the purveyors of this root, but its use is practically illegal and now all inquiries are met with a know-

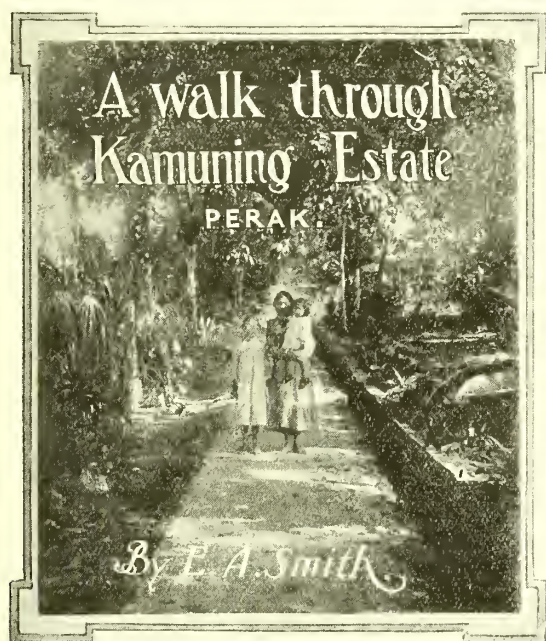
ing look and a "M'thee boo, thakin" (Don't know, sir).

I was startled to find at a jungle pagoda one festival day a very familiar form of medicament—no more nor less than lapis divinus—"eye-medicine," the old sasayah informed me, is his Burmese equivalent for it—and I gathered that copper sulphate and alum enter into its composition. It was in the form of pencils about an inch in length, rolled up in the fingers when warm, and of an opaque bluish-white colour.

A PICTURE-POSTCARD issued by the Timothy White Co., Ltd., Dover and elsewhere, bears the following statement:

Just a line to say I arrived safely, and to thank you for the very pleasant time I spent with you. By the way, I had my prescription made up at Dr. Timothy White's, the Chemist, who has two establishments in the town. They only charge me 10/-, and as you know, I have always paid 4/- elsewhere. They have nice places here, and all their goods seem to be excellent, as well as moderate in price. Do you know they have two large branches in your town at 18 Cannon Street & 33 London Road? Your old friend, C.

This is very strongly resented by many chemists, one of whom remarks in sending the original to us, "It shows to what extent 'cash chemists' can go."



AFTER walking for half-a-mile through an avenue of rubber-trees (*Hevea brasiliensis*) I came on to a patch of about an acre planted well with a peculiar spearlike plant known as *Sansevieria zeylanica*, from which a very fine fibre is obtained, samples of which are valued at 40l. per ton. I next walked through a field of rubber-trees of some seven years' growth. Tapping was going on, and from these, I understand, a yield of 3 lb. rubber per tree is obtained. We then had to cross a belt of jungle to a larger and much more extended field of rubber of some 400 acres; the glory of this belt of jungle is unsurpassed. I saw growing side by side delicate alpinias, a zingiberaceous plant, those beautiful dwarf palms, *Ignanura Wallichiana* and *Didymosperma pinanga* var. *disticha*, dracenas in profusion, and that extraordinary-looking plant with long lanceolate leaves and clusters of very dark purple flowers, with immensely long stigmas of a lighter colour, which is known as Tekkas. Tree ferns in profusion and creepers intertwined everything from the top of the tallest trees to the ground. It almost seems a pity that practically all this jungle is doomed either to be cleared for the planting of rubber or for tin-mining. Some of the trees in this jungle (*Afzela palembanica*) grow to a height of 250 ft.; the wood is valuable, but it appears that the expense of removing the trunks is so great that after the trees are felled they are simply set on fire, and everything is burnt up.

In this large 400-acre lot of rubber may be seen growing, as an experiment, young plants of the camphor-tree (*Cinnamomum Camphora*), which seem to thrive well; also thousands of trees of *Carica Papaya*, from which papain is obtained by incising the unripe fruit and scraping off the exuded latex after it has dried in the sun. These fruits when ripe are extremely good eating.

Later on we came to a clump of *Erythroxylon Coca*, the scarlet berries of which remind one of Tabasco chillies. In another direction I saw growing the banana (*Musa textilis*), from which is produced the celebrated Manila hemp, also the croton-oil plant and the rhea or ramie fibre plant, which is a species of nettle.

Wending our way backwards we pass through the remains of what was once a very flourishing field of coffee-bushes, which are rapidly being cut down and replaced by rubber. I saw here some very fine specimens of *Castilloa elastica*, and also of *Puntumia elastica* rubber trees, the former a native of Central America, and the latter of West Africa, seeds of which were obtained by Mr. A. D. Machado from Mexico and the Congo. The rubber indigenous to the Malay Peninsula known as the rambong, or *Ficus elastica*, was, of course, much in evidence everywhere on the estate, as well as the other indi-

genous rubbers, such as the creeping *Willoughbeia elastica* and *Dichopsis gutta*, the latter, truly speaking, a gutta-percha, and not a rubber. The somewhat despised Ceara rubber-tree, *Manihot Glaziovii* was also growing here.

Here I came across the vine (*Piper nigrum*) producing the well-known pepper of commerce, which is also cultivated on this estate. Some were climbing up living trees grown especially for the purpose (*Erythrina indica*), and some attached to wooden posts. The difficulty with these is that constant care and supervision has to be exercised to prevent the vines toppling over, owing to the tendrils becoming old and giving way.

Of the immense variety of edible fruits I saw growing I may mention pineapples, durian, rambutan, mangoes, bananas, the soursop and bull's heart (two anonaceous plants), and many others. We next went to the factory. On our way we passed the hospital, quite a fine airy building, with cement floors, iron bedsteads, and a well-equipped dispensary, in charge of an Indian dresser, an English doctor coming over once a week. The principal diseases that the natives employed on the estate seem to suffer from are malarial fever and bowel complaints.

At the factory we saw rubber in all stages of manufacture for the London market, from the raw latex just brought in by the native tappers to the finished blocks. I may perhaps describe the process by which the latex is turned into rubber. On its arrival at the factory it is first strained through muslin, then a dash of dilute acetic acid is thrown into the tub which contains the strained latex. This is next well stirred, and then ladled into shallow pans, where it remains until the next morning, when it is sufficiently coagulated to be passed through the washing-machine. This machine is of local manufacture, but is in principle and design very similar to the machines used at home. The coagulated latex is passed through rollers over which a stream of water is constantly passing, and which washes out all impurities. The rollers gradually tighten until the rubber becomes a long, thin, crêpe-like strip. These strips are then dried for three days and pressed into 10-lb. blocks, twelve of which are packed in each case.

In this factory workers were distilling by means of a huge local-made still, which would have looked clumsy to a chemist from home, but which evidently did its work extremely well, both patchouli and lemongrass oils.

This estate belongs to Mr. Machado, and is 6,000 acres in extent, of which over 1,000 acres are already under cultivation. To look after this huge place 400 coolies have to be employed—principally Klings, from India, for whom a mosque and native priest are supplied; but we also saw Malays and Javanese at work. The soil seems especially good for the growth of rubber—e.g., one tree increased 12 in. in girth in one year—though when the manager pointed out a fine rubber-tree growing on a heap of refuse from a tin-mine, on which not even a blade of grass would grow, one is apt to think that perhaps soil has not so much to do with it as heat and moisture.

AT THE MINOR EXAM.



DON'T

RACK THE OBJECT GLASS

THROUGH THE MICROSCOPIC SLIDE.

Apples in Medicine.

By C. C. BELL.

THE apple, though it is the symbol of immortality, has never held a very important place in medicine, but the articles on Pomade, Pomander, and Pomatum, in the latest triple-section of the Oxford English Dictionary, tend to make its place appear less than it really was. Thus Pomade is defined as "a scented ointment (in which apples are said—the italics are mine—to have been originally an ingredient) for application to the skin," etc.; while the definition of Pomatum, in this sense, is simply "Pomade"; and there is nothing in the article on Pomander to show that apples were ever an ingredient of the aromatic substance supplied under that name.

But it is, of course, well known that apple-pulp was originally the chief, or at least a very important, ingredient of unguentum pomatum. It is true that in the preparation so-called by Zwelfer, and in that of the Augustan Collection, the apples were, as Alleyne puts it, "crouded with many more" ingredients; but the Venetian physician Amatus Lusitanus discarded most of these, and the preparation entered the "Pharmacopeia Londinensis" in a very contracted form. Culpeper gives it thus:

Take of fresh Hog's grease, three pound, fresh Sheep suet nine ounces, Pomewaters pared and cut, a pound and nine ounces, Damask Rose Water, six ounces, the roots of Orris Florentine, grosly bruised, six drams, boyl-them in *Balneo Marie* till the apples be soft, then strain it, but press it not, and keep it for use, then warm it a little again, and wash it with fresh Rose Water, adding to each pound, twelve drops of Oyl of Lignum Rhodium.

This retained its official place well into the eighteenth century, when it was superseded by unguentum simplex, otherwise pomatum, which consisted merely of hog's lard and rose-water, with a little essence of lemon. The unguentum pomatum of the "Edinburgh Dispensatory," however, was from the first composed only of lard and rose-water scented with oil of rhodium.

So much for Pomatum. As regards Pomander, it would appear from the quotations given in the article in the O.E.D. that the name refers to the shape of the case in which the mixture was carried. Thus in "John Inglesant" we read of "a pomander of silver in the shape of an apple, stuffed with spices," and in the "Roman de la Rose" we have "plus olant que pomme d'embre"; but, however this may be, it is clear that apples were formerly an ingredient of the "spice" itself, for Halliwell quotes the following recipe for it from "The Secretes of Mayster Alexis," 1559, p. 57:

Take pyppyns or other lyke melowe apples, and laye them upon a tyle for to bake in an oven; then take out the core and the kernels, and make theym cleane wythin, brayenge and breakynge the reste, and strayne it thouroughe a fyne canvesse or straynour. This done, take as much fat or grease of a kydde as you have apples, and strayne it lykewise, boyling it all together in a newe vessell well leaded, untill the rose water be consumed; then add to it muske, cloves, nutmegges, and such lyke substances of a reasonable quantitie according to your discretion; provided alwayes that they be well brayed and broken in pyeces as is above sayed; and boyle them in the like maner aforesayed; then straine them and kepe them.

It will be noticed that Master Alexis omitted to mention the rose-water in which the apples were to be boiled until the process was supposedly over; and it should be added that his recipe differs widely from others that are better known. The one in Mr. Weddell's "Arcana Fairfaxiana" consists of ambergris, musk, civet, gum benjamin, cloves, labdanum, gum dragon, and rose-water.

Apples were also used internally, entering into the composition of several once popular confections. The only one of these that was official in this country appears to have been confectio alkermes, which consisted of juice of apples, rose-water, syrup of kermes berries, sugar, ambergris, cinnamon, aloes-wood, pearls, gold-leaf, and musk. This was esteemed "a great cordial and mighty strengthener of the heart"; but one can scarcely regard this virtue as due to the apple, since that is classed among cold fruits. An even more popular cordial, the fame and even the use of which still survives, was lamb's-wool, the recipe for it being

simply roasted apples boiled in ale. Gerard also recommends:

The pulpe of the rosted apples, in number foure or five according to the greatness of the apples (especially the pome-water) mixed in a wine quart of faire water, laboured together untill it come to be as apples and ale, which we call lambes-wool.

Folkard says this should be "lamosool," the derivation of the word being the Celtic *lámneasabhal*, the day of apple fruit; but this is too fanciful for our philologists, who regard "lamb's-wool" as merely figurative, referring to the softness and smoothness of the drink. It is, indeed, in Artemus Ward's phrase, a most "seductive flood."

Perfume=compounding.

By "WRINKLES."

THE use of scent-giving substances is mentioned in the earliest Biblical writings, and several passages in Exodus prove the use of perfumes at a very early period. Gifts of sweet-smelling substances have always betokened respect and homage. In the "Iliad" we read:

Venus night and day,
Daughter of Jove
All the corpse o'erlaid with roseate oil
Ambrosial.

Among the Greeks the art of the perfumer was a peculiarly honourable one. Like the Romans, they used at their banquets sweet-smelling substances in profusion; while the wines of Athens and Phœnicia were perfumed and flavoured with sweet-smelling flowers. Later on we find there existed in all old English mansions the stillroom, where the ladies of the family were early initiated into the art of distilling fragrant washes and perfumes from the home-grown flowers, such as roses and elder-flowers. In 1770 Parliament thought it necessary to bring in an Act "That all women shall not betray into matrimony" any of his Majesty's subjects by the use of scents, paints, cosmetic washes, artificial teeth, false hair, etc.

From the coarser and heavier perfumes of the ancients we find them gradually become of a more refined character until, by the time of Marie Antoinette, rank odours had fallen out of use, although the perfumes which became popular in their place were not so delicate as those at present on the market. I propose first to give hints embracing the manufacture of perfumes from flowers, and secondly from synthetic ingredients, a good knowledge of the former being helpful to a successful use of the latter. The flowers capable of being used in perfume-making are comparatively few in number, and the principal are jasmine, rose, tuberose, orange-flower, cassie, violet, and lavender. They yield their odours either by expression, distillation, maceration, or absorption; and the perfumer buys the products of these processes from his wholesale house. After treatment some of these floral odours are so fleeting that they require substances to fix them. These comprise orris-root, sandal and cedar woods, patchouli, thyme, Tonquin bean, caraway, vanilla, and cinnamon, from the vegetable kingdom. Balsams of Peru and Tolu and storax are not now much used in compounding scents, the most useful cheap fixing agent of that nature being benzoin. The animal substances useful as fixing agents of the more volatile scents are musk, civet, and ambergris.

The *sine qua non* in manufacturing perfumes is to use a good spirit. To hasten the maturing of perfumes add 5 minims of solution of ammonia to 2 pints. The extracts required in the formulæ are as follows:

Musk.—Pour on 2 dr. of grain musk 18 dr. of boiling water, and when cold add 34 oz. spirit.

Civet.—Civet 1 dr., orris-root 1 dr., and spirit of wine 20 oz.

Orris.—1 dr. of root to 1 oz. of spirit.

Storax.—Strained storax 9 dr., spirit of wine 20 oz.

Tonquin.—Crushed Tonquin beans 4 oz., hot water 5 oz.; when cold add spirit of wine 10 oz.

Patchouli.—Oil of patchouli 1 dr., spirit of wine 5 oz.

Rose (Triple).—Otto of rose 3 dr., spirit of wine 20 oz.

Benzoin.—Powdered benzoin 1 oz., spirit of wine 10 oz.

Vanilla.—Vanilla (cut small) 2 oz., spirit of wine 2 pints.

The following are my formulæ for compounded perfumes:

Violette de Parme.		Jockey Club Bouquet.		Ylang-ylang.	
Ess. cassie from pomade ...	3xv.	Essence of jasmine ...	3iiss.	Oil of orange ...	3j.
Ess. rose from pomade ...	3x.	Essence of musk ...	3iv.	Oil of neroli ...	3ss.
Ess. tuberosa from pomade ...	3x.	Otto of rose ...	3xx.	Essence of Tonquin bean ...	3iij.
Ess. violet from pomade ...	3xix.	Oil of sandalwood ...	3j.	Tincture of orris ...	3viiij.
Tincture of orris ...	3x.	Essence of bergamot ...	3ss.	Essence of musk ...	3iij.
Oil of bitter almonds ...	3iiij.	Oil of neroli ...	3xx.	Essence of tuberosa from pomade ...	3iij.
Wood Violet.		Benzoic acid ...	3j.	Essence of cassie from pomade ...	3iij.
Oil of almonds ...	3xx.	Tincture of orris ...	3x.	Spirit to ...	3ij.
Oil of English lavender ...	3j.	White Rose.		White Lilac.	
Oil of verbenia ...	3xxx.	Essence of tuberosa ...	3ij.	Essence of tuberosa ...	3xj.
Oil of coriander ...	3xl.	Oil of orange ...	3ss.	Essence of orange-flowers ...	3vj.
Oil of bergamot ...	3iij.	Essence of jasmine ...	3j.	Essence of civet ...	3iv.
Essence of musk ...	3iv.	Otto of rose ...	3j.	Oil of bitter almonds ...	3iiij.
Essence of jasmine ...	3iv.	Oil of patchouli ...	3iiij.	Ess. Bouquet.	
Tincture of orange ...	3xx.	Tincture of orris ...	3ij.	Otto of rose ...	3j.
Benzoic acid ...	3ij.	Benzoic acid ...	3ss.	Oil of neroli ...	3ss.
Spirit to ...	3iv.	Rectified spirit to ...	3ij.	Oil of pimento ...	3xx.
Carnation.		White Heliotrope.		Oil of cedar ...	3xxx.
Essence of rose ...	3x.	Essence of vanilla ...	3v.	Oil of lavender ...	3j.
Essence of orange-flower ...	3v.	Essence of vanillin ...	3v.	Oil of patchouli ...	3iv.
Essence of cassie ...	3v.	Essence of rose ...	3v.	Oil of bergamot ...	3ss.
Essence of vanilla ...	3v.	Oil of bitter almonds ...	3v.	Essence of musk ...	3iv.
Oil of cloves ...	3x.			Spirit to ...	3iv.

In the above formulæ the essence of cassie, jasmine, violet, etc., refers to those obtained from pomades.

The next set of formulæ provide for artificial and synthetic substances, and are not of so permanent a character as those just given, but they come at popular prices. Where

better prices can be obtained I would recommend blending those made from floral bases with those from synthetic sources. I have thus made some delightful perfumes, and I consider the addition of natural scent essential.

A useful base for synthetic perfumes is the first.

Perfume Base.		Syringa.		Violette de Parme.	
Spirit of wine ...	20 oz.	Synthetic syringa ...	3iv.	1.	
Rose-water ...	5 oz.	Base ...	3xxv.	Violetton ...	3j.
Solution of ammonia (880) ...	5 min.	Jasmine.		Synthetic jasmine ...	3xx.
Simple tincture of benzoin ...	4 dr.	Synthetic jasmine ...	3j.	Coumarin ...	3ss.
Tincture of orris (1 in 1) ...	2 oz.	Base ...	3xxx.	Base ...	3j.
Lilac.		Tint pale green.		Ylang-ylang (as above)	3v.
Synthetic lilac ...	3v.	Heliotrope.		Colour pale green.	
Base ...	3xxij.	Heliotropin ...	3j.	2.	
Essence of civet ...	3iv.	Base ...	3xxx.	Violetton ...	3iij.
Essence of vanilla ...	3ss.	Essence of vanilla ...	3ij.	Oil of neroli ...	3x.
Oil of bitter almonds ...	3iij.	Oil of bitter almonds ...	3viiij.	Oil of bitter almonds ...	3x.
Tint pale mauve.		Essence of musk ...	3j.	Synthetic jasmine ...	3xx.
Carnation.		Tint a pale mauve.		Base ...	3j.
Synthetic dianthin ...	3j.	White Rose.		3.	
Base ...	3xxx.	For a cheaper perfume than that already given use equal parts of this and jasmine.		Violetton ...	3iij.
Tint pale pink.				Essence of musk ...	3ij.
				Rose triple ...	3iij.
				Base ...	3xxx.

Napoleon's Perfumes and Medicines.

NAPOLEON I. had a fine set of teeth, of which he was very proud. An invoice presented by Gervais Chardin, perfumer to their Imperial and Royal Majesties, Paris, in October 1808, includes six boxes of powdered coral for the teeth, 361f. The same tradesman's bills from June 2 to September 1806 charged 15 dozen in boxwood and ivory, and in October 1808 he invoiced 24 dozen boxwood tooth-picks, 48f.

Windsor soap the Emperor always seems to have used; Chardin invoiced it at 2f. per cake in 1808. Sponges were also often invoiced by Chardin—e.g., 20 superfine sponges 262f. and 12 superfine sponges for the face 144f.

Napoleon was fond of the smell of signaloes (which then cost 72f. per oz.), and occasionally bought other perfumes, such as 1 large flask of double extract of Spanish jasmine, 40f.; but eau de Cologne was his principal, and almost his only, regular purchase in this line.

Eau de Cologne was Napoleon's favourite perfume, and his consumption of it was phenomenal. He used it in water when washing, and poured it in profusion over his head and shoulders. Madame de Remusat states that he used sixty "rouleaux" or bottles per month. His perfumer Chardin sent in a quarterly bill in 1806 as follows:

162 bottles eau de Cologne ... 423 frs.
26 superfine sponges ... 262 "
26 ornamental pots of almond-paste (*pâte d'amande*) ... 366 "

In 1810 we find an invoice for 144 bottles of eau de Cologne, 300f.—Chardin had reduced his price. Shortly

afterwards Napoleon found a more advantageous manufacturer of "improved eau de Cologne" who invoiced in 1812-13, "for the Emperor's use," 108 cases of eau de Cologne, each containing six rouleaux, at 17f. per case, 756f. When Napoleon returned from Elba he dealt with J. Tessier, at the Golden Bell, in the rue Richelieu, who invoiced, March 20 to April 30, 1815:

4 cases eau de Cologne ... 24 frs.
2 cakes orange-flower soap ... 6 "
6 cakes Windsor soap ... 7 frs. 50
3 superfine white sponges ... 30 frs.
2 hair-brushes (mahogany) ... 18 "
2 rheumatism-brushes (mahogany) ... 21 "

The sum provided in the Emperor's cure-list, for doctors, pharmacists, dentists, pedicures, etc., was 201,700f. (a little over 8,000*l.*) per annum. The pharmaceutical salary-list in 1810 stood as follows:

Deyeux, head pharmacist ... 8,000 frs.
Clarion, auxiliary (residing at St. Cloud) 5,000 "
Rouyer, ordinary auxiliary pharmacist ... 3,000 "
Cadet, ordinary auxiliary pharmacist ... 3,000 "
Gruelle, first assistant pharmacist ... 1,800 "
Lecœur, second assistant pharmacist ... 1,500 "
Boudouard, laboratory porter at the St. Cloud Pharmacy ... 1,000 "

Napoleon had little belief in the action of drugs, holding that faith is the great agent. It is stated that about the time of the birth of the King of Rome, Marie-Louise complained of acute pains, and the Emperor arranged with

Corvisant, the head physician, to administer to her some breadcrumb pills. The Empress's announcement that she felt much better after taking these confirmed Napoleon's convictions. This little tale is told of and by so many people that it does the memory of Napoleon no harm to make him one of the crowd of its originators.

DESPAIR.

(The Lamentation of J. P. T.)

Why can't a man live a peaceful life
Though he is a chemist man?
I'm harried and worried, I'm flustered and scurried
By an antagonistic clan.
The grocer, the baker,
The Churchman, the Quaker,
And every ambitious old quack-mixture maker
Is trying to strangle and crush me out.
And that they'll succeed I haven't a doubt.
For I'm only a chemist man.

I'm pinched by the fellows at Bloomsbury Square,
And pecked at by Somerset House;
I'm bothered and vexed and annoyed and perplexed
Like a timid, wee, cat-hunted mouse!
Each smart drug-inspector
And poison detector,
And every professional chemist-invector
Are down on my top like a cartload of bricks,
And it's no use me kicking against the pricks,
For I'm only a chemist man.

I'm a public convenience for selling stamps
And supplying the children with change;
If a hint I should give that I do wish to live,
Their manner becomes very strange.
What a difference it makes,
How their *sang-froid* it shakes!
No wonder the chemist so fearfully quakes
At his customer's wrath when he ventures to ask
For the hire which the labourer gains for his task,
Though he's only a chemist man.

But I only sigh and bemoan my lot
As I helplessly wring my hands;
I am lonely and friendless, my troubles are endless,
I cannot enforce my demands.
I have no courage left,
Of all hope I'm bereft,
For I'm hopelessly beaten by others more deft.
I am wearied of striving with no success,
For my wrongs, I'm persuaded, I'll ne'er win redress—
I'm a heart-broken chemist man.

It is time this unequal struggling ceased :
Do away with the chemist man!
Let doctor and grocer, ay, e'en the whole show, sir,
Dole out poisons as best they can;
For the public don't want me,
They wickedly taunt me, [haunt me,
And the ghost of a living they furnish to
And I care not how soon I'm a thing of the past;
So bid me good-bye, for you'll soon see the last
Of this sorrowful chemist man.

DUTY-FREE BROMINE AND IODINE IN FRANCE.—With reference to the notice which appeared in the *C. & D.* of December 29, 1906, p. 973, respecting the temporary duty-free admission of bromine and iodine for the manufacture of certain products, the French "Journal Officiel" of December 1, 1907, contains a presidential decree laying down the conditions under which such duty-free admission can be effected. The products in the manufacture of which imported bromine or iodine has been used must be presented for verification at the Customs-house in Paris within a period of three months from the time of the importation of the bromine or iodine; and the quantities of such products which must be re-exported for every 100 kilos. of bromine or iodine imported are fixed as follows: Bromide of sodium (anhydrous), 125,400 kilos.; bromide of ammonium, 119,400 kilos.; iodide of sodium (anhydrous), 115,150 kilos.

South African Plants: Notes on those of Medicinal Interest.

By G. E. OLIVER.

BUPHANE DISTICHA, OR B. TONICARIA.

ANY South African who previously did not know the botanical name of this plant will at once recognise from the engraving a familiar object on the open veldt, though by no means plentiful in any one spot. It is not usual, however, to see the flower and leaves flourishing at the same time. The bulb stands halfway out of the ground, and collectively the leaves when fully developed assume the shape of an open fan. The flowers, which are the first to appear, are in a dense head, supported on a stout stem, and are of a fleshy pink colour and sweet-scented. When the petals wither the individual stalklets, each terminated by a seed-vessel, continue to elongate until, when dry and ripe, the general outline is spherical, and the whole mass detaches itself from the parent stalk and is blown over the veldt,



Bulb divested of Outer Tunics (showing arrangement of bulb and rootstock and the leaves and growth of new bulb). Plant in Full Bloom (showing first appearance of leaves).

BUPHANE TONICARIA.

rolling over and over, and scattering its seeds broadcast. It belongs to the natural order *Amoryllidaceae*. The bulb itself consists of innumerable layers of a thin transparent silky tissue, which assume a magenta colour when separated and exposed for some time to the air. It is firmly attached to the soil by a short thick rootstock, which gives off very long tough rootlets that penetrate deeply.

The chief use of the plant among natives is as a protective tissue after circumcision, for which purpose the thin silky nature of the bulb-coats renders it specially adaptable. It does not appear to be applied on account of any healing properties, but merely as a protective, as only the outer and drier layers are used. Other uses are attributed to it by Andrew Smith, one of which is as an arrow-poison, no doubt on account of the poisonous alkaloid it contains. It is also believed by some natives (according to the same authority) to be one of the plants which vultures are supposed to cat after gorging themselves with carrion to counteract ptomaine-poisoning. Its Kaffir name is *in-Cwadi*, from the resemblance of the numerous coatings of the bulb to the leaves of a book, and its Dutch name *Gift Bol* = poison-bulb. Chemically examined, it is found to contain starch and a large quantity of mucilaginous matter. Its poisonous principle, however, is aconitine (not brucine, as stated by Smith in his second edition), which can be extracted with suitable solvents, and gives the characteristic tingling and numbing sensation to the tongue and the recognised colourations with strong mineral acids.

A supply of this plant has recently been sent to the Wellcome Chemical Research Laboratory for investigation.

Impressions of some Riviera Pharmacies

by

WILLIAM MASKEW

Pharmaceutical Chemist.



BY force of circumstances my annual holiday must be taken during the winter months, when business at most of our seaside resorts is at a low ebb. The Riviera is my favourite rendezvous, and thither, with my wife, I made my third visit in January last to the Côte d'Azur, that wonderful strip of coast stretching between St. Raphael and San Remo. We travelled *via* Paris and Nice. A year or two before I thought that Nice was losing popularity, but I was mistaken, for the streets were now crowded with fashionable visitors from the two hemispheres. We were just in time to witness the arrival of his Majesty King Carnival, who came down the busy Avenue de la Gare on his ten thousand horse-power motor-car, his bride by his side, amid the fanfare of trumpeters, and accompanied by a retinue of thousands of grotesque courtiers.

NICE PHARMACIES.

I had set out with my hand-camera to take pictures of pharmacies among other things, and the purpose of these notes is to show what I and the camera saw. The Nice *clientèle* being, as a rule, of the superior kind, the pharmacies also are of a high order, and the men who control them are highly-trained professional men. Generally they have to be fairly well-to-do before entering their calling, as the long curriculum in France is expensive, the pharmacien's diploma not being conferred until the age of twenty-five. The amount of capital necessary to buy a pharmacy is also large, goodwill counting for much more than in England. The population of Nice is now about 150,000, increasing at the rate of about 5,000 yearly. As a result I saw two or three buildings being erected which were destined to be new pharmacies. I find that 182 doctors and officers of health are practising at Nice, and there are forty-five pharmacies. The Avenue de la Gare alone boasts of at least a dozen fine chemists' shops, most of which monopolise large corner sites, and if the information I gathered concerning such items as rates and taxes are correct, I can quite understand that the high prices we often hear about are by no means excessive, unless the pharmacist desires to run his business on philanthropic rather than practical lines. The Grand Pharmacie du Sud and the Pharmacie Regionale are situated to the north of the railway station, somewhat removed from the recognised business centre. A fair assortment of English patents is kept at each. Mr. Carabanel, the proprietor of the Pharmacie du Sud, is the official chemist to the Paris, Lyons, and Mediterranean Railway Co.'s employés, and specialises somewhat in surgical instruments, trusses, etc. The Pharmacie Regionale is under the guidance of Mr. Colin, a first-class graduate of the Nancy School of Pharmacy.

On the opposite side, and fronting the incline leading to the railway station, is the Riviera Pharmacy, which, though established only four years, is now well known. Mr. Girard, the proprietor, makes good use of his several windows; Atkinson's and Pinaud's perfumery, Brand's essence, diabetic foods, and cod-liver oil constituted to a

great extent the articles shown. Above the fascia and on the corner of the building I noticed a somewhat unique sign resembling the frame of an open umbrella with silver letters attached. At night it is illuminated by a single incandescent lamp and extols the virtues of a speciality. Some announcements in German and Russian grace the windows, as well as a striking phrase in our own tongue indicating "the cheapest chemist in Nice," proving that even in these favoured parts a certain section of the community are alert to make the best use of their money. Three or four assistants are kept in the season, and, among them, speak a multiplicity of languages.

Traversing the street we find Rostagni's pharmacy at another corner. This is certainly one of the best-known Mediterranean pharmacies. It is remarkable for both size and elegance, and many British pharmacists have had a season in it. The English assistant has a responsible post, and has to rely much upon himself, as the proprietor, M. Rostagni, is engaged at another establishment on the Old Quay, where most of the specialities and packed goods are manufactured and stocked. The decoration scheme of the Avenue premises is in dark red and gold, and among other articles displayed in the windows I noticed Sanatogen, Sotatose, Whiteley exercisers, and bleached honeycomb sponges.

The next pharmacy to attract attention is nearly opposite, where the old-established Pharmacie Guidasci occupies another corner site. The decoration is of black and gold, an air of neatness prevailing. The windows indicate a French rather than a foreign *clientèle*, though cod-liver oil, eau de Cologne, surgical dressings, and enamelled douchettes were conspicuous items in the large windows. Close by is the Pharmacie Canavet, well situated in the busiest part of the thoroughfare, though occupying a smaller frontage. Colgate's soaps and dentifrices, and a French version of a "one-night" corn-cure, enjoyed the distinction of prominent display.

Crossing the road, at an important corner is one of the handiest Riviera pharmacies, belonging to Mr. Cesar Rebec. The frontage is very large, and, being painted white with red and gold ornamentation, the corner is very conspicuous. A projecting sign announced an "English qualified chemist from Paris." The first thing to catch my eye on entering the pharmacy was the current issue of the *C. & D.*, laid on one corner of the dispensing-counter. I naturally borrowed it each week. Mr. Beaton, the English assistant, was having a second winter season at Rebec's. He told me that the experience was much better than could be obtained in England. I could hardly name any established proprietary without seeing it in some of the showcases. Mr. Rebec, though having a large analytical practice, is a good business man, and well aware of the importance of having just what is asked for. Some of his own specialities are well known, and from personal experience of his cough-remedy, called Sirop de Bromoform, I can add a word of praise. This is packed in 8-oz. bottles, retailing at 4f., and among the ingredients are codeine, aconite, and syr. pruni virg. The windows are well used for advertising such

things as Rebec's Violette de Nice, which is artistically put up in bottles from 1s. upwards.

At 25 Avenue de la Gare is the Pharmacie Romuald Garnier. My illustration is from a picture postcard which was handed to me by the genial proprietor, who is seen in the photo. with his hand in his coat-pocket. There is a staff of six experienced assistants and two porters. The signs, "Pycckar Anteka," "Deutsche Apotheke," "English Chemist," etc., cause no disappointment to the visitor

free terms, which facts impress the buyer. Mr. Garnier buys a good deal direct from England, and says, "When I am in any doubt I consult this," taking down from a bookshelf with a certain pride the *C. & D. Diary*. This is the last pharmacy on the right, but on the opposite side are three others, which would be Riviera assistants might like to know of. Feraud's pharmacy, at No. 46 Avenue de la Gare, has for many years had a good connection with English visitors. The shop is well situated, and good use is made of



CABANEL'S PHARMACY, NICE.



LEONGINI'S PHARMACY, NICE.



REBEC'S PHARMACY, NICE.



PASSERIEUX'S PHARMACY, NICE.



SUE'S PHARMACY, NICE.



GARNIER'S PHARMACY, NICE.

attracted thereby, several of the staff being versatile linguists. Mr. Garnier himself has a good knowledge of English. His experience of our country extends to a few months' residence in Edinburgh, of which city he holds a high opinion and happy recollections. From him I learnt that the Germans are rapidly gaining commercial ground on the Riviera, and year by year the English commercial traveller finds his task more difficult. They (the Germans) generally quote in French money, duty paid and carriage

the windows. Maw's invalids' and sick-room requisites, eucalyptus tooth-paste, and eau de Cologne occupied some of the window-shelves, and below was a good show of eucalyptus jujubes in 1s. boxes, a speciality for which the firm have long been celebrated.

Sue's pharmacy is even more cosmopolitan than any of those mentioned, if such a thing is possible. The business enjoys a constant stream of customers during the season, and, whether they are American, Russian, Italian, or Ger-

man, they are attended to with perfect ease in whatever language they wish to speak. A good number of English assistants have had a season's training here.

Mr. Basso's British Pharmacy and Medical Hall is one that has always been held in high repute by English visitors and doctors, and was one of the first pharmacies that could lay claim to the title "English chemist." Mr. Basso himself speaks English perfectly, and has always gained the

cent palm-trees. On the north side is the Pharmacie Anglaise, of which we heard so much prior to the death of its founder (Mr. Nicholls) a few years ago. The late Queen Victoria, when wintering at Cimiez, always favoured this establishment. The pharmacy still retains its English character, Mr. Foli (the present owner) having had a long connection with the business. The staff of assistants usually includes two Englishmen, the senior being engaged



CARNIVAL PROCESSION PASSING NICHOLL'S PHARMACY, NICE.



REILLY'S WHOLESALE DEPÔT, NICE.



BLANCHET'S PHARMACY, MENTONE.



ODDO'S PHARMACY, MENTONE.



BASSO'S PHARMACY, NICE.



GIRARD'S PHARMACY, NICE.

respect of his assistants by his kindly disposition. Basso's is a much-coveted place among prospective Riviera assistants. Advertisements of the goods of Allen & Hanburys, Ltd., and Brands, Ltd., cover the two swing-doors, while the lower window-facias are lettered with various names of French mineral waters.

Emerging from the Avenue de la Gare into the fine Place Masséna, we notice a large sign indicating the position of the Pharmacie Scoffier; but, turning to the right, we enter the Public Gardens, which are justly celebrated for both design and beauty, surrounded, as they are, with magnifi-

from November 1 to April 30, and the second from December to April. The Masséna Gardens (reduced in the title) often present a very animated scene, and in the season are bathed in the most glorious sunshine from early morn to rosy eve. There stands this noted pharmacy.

There are many other establishments which would interest English assistants; but my remarks must be brief, and I cannot illustrate them all. In the Place St.-Etienne the Pharmacie Leongini has for many years enjoyed a high reputation with British residents, visitors, and doctors. The business is mainly a dispensing one, and in the course

of a chat with Mr. Scott I gathered that he was more than satisfied with his first season at Nice.

Nearly facing is the Pharmacie Passerieux, which is unique in having a *droguerie* attached. The premises are spacious, and the pharmacy proper is kept apart from the *droguerie*, where photographic materials, sponges, brushes, soaps, etc., are sold. The business struck me as being a very popular one, and during the few minutes' talk I had there with the proprietor the number of customers served was astounding. The dispensing done is also considerable, and the stock of new remedies, ampoules, surgical instruments and appliances was a revelation, but by far the greater part of these were not of English make.

In the rue de France, at Mr. Liotard's pharmacy, a season assistant is engaged. Mr. Liotard is conspicuous by his scientific attainments, possessing also the degree of a Doctor of Medicine, and is a Fellow of the Chemical Societies of London and St. Petersburg. He has contributed largely to scientific journals, and there is no doubt a season spent with him would have a lasting beneficial effect on any young chemist; and the same remarks would apply to a season's experience at either the Pharmacie Pegurier, Guillaibert, or Anglo-Russe. Most of the situations are outdoors, and for about five months' duration. The usual salary is 250f. to 300f., with railway fare one way. Bedrooms cost about 35f. per month, and two substantial meals per day can be had by arrangement at the smaller restaurants for from 85f. to 90f. per month.

Before leaving Nice a mention of an important undertaking as a wholesale house by Messrs. Reilley & Co., of rue Nieppe, would not be out of place. Mr. Reilley (whose brother is established as a chemist at Monte Carlo) is a man who fills a long-felt want on the Riviera. His premises are convenient and extensive, and the stock may be said to represent a complete index to a chemist's shop, with the exception, perhaps, of galenicals. The stock is enumerated in a 75-page price-list, and articles are quoted singly and in dozen quantities at duty-paid, carriage-free terms. Messrs. Reilley list a complete range of the products of Allen & Hanburys, Burroughs Wellcome & Co., Bishop, Brand, Calvert, Colgate, Elliman, Gosnell, Maltine Co., Maw, Oppenheimer, Parke, Davis & Co., Savory & Moore, and Vinolia. They also have a series of packed goods, in addition to the usual assortment of druggists' sundries. Mr. Reilley informed me of the expenses and carriage in connection with many of their articles, and estimated at least 40 per cent. all round as a minimum. A few prices taken at random from their list are as follows:

	f. c.
Ashton & Parsons' Phosferine ...	1 50 per bottle
Beecham's pills ...	1 35 per box
Bishop's variales ...	1 40 per box
Brand's essence ...	1 70 per box
B. & W. cascarras ...	60 per bottle
Calvert's tooth-powder ...	50 per box
Clarke's blood-mixture ...	3 40 per bottle
Maw's corn-plasters ...	30 per box
Rimmel's oatmeal ...	65 per box

The retail pharmacies place about another 75 per cent. on these prices, store-trading not troubling them and the average tourist fully expecting to pay much more than he does at home. I further elicited that the French pharmacien is a very cautious buyer. He always hesitates at new lines, and before he buys largely likes to have about a twenty-years' acquaintanceship with an article or else have the information that a competitor on either side of him has taken it into stock. Thus it is that sometimes the English commercial traveller does not experience a very rosy time on the Riviera unless he represents a house with a good connection, and the best way to introduce a new article is to arrange with some established firm as a distributing agent, then send out a traveller who would be able to quote a price delivered and take orders for a small amount. The French Riviera in these days of German prosperity cannot be compared with twenty-five years ago, and the Teuton, whether on business or pleasure bent, now equals, if not outnumbers, the British and American.

AT MONTE CARLO

practically the same conditions apply as are typical of the Riviera pharmacies in general, and I shall merely

enumerate, for the benefit of assistants, the establishments where vacancies are likely to occur. Monte Carlo is reached in about half an hour by train from Nice. During the fashionable season Monte Carlo is truly the Mecca of the pleasure-seeker and wealthy idler. In the Casino around the democratic roulette-table illustrious personages of both sexes rub shoulders with a motley, though well-dressed, crowd of confirmed gamblers from distant parts of the world. No one engaged in business of any description within a radius of fifty miles of the Principality is allowed to enter the Casino. This is known to most chemist assistants, many of whom have, I believe, overcome the rule by some artful subterfuge. A word of advice to those whose curiosity is such as might take them near is that any coin of the realm they do not wish to lose should be left outside the threshold of the Casino. The pharmaceutical establishments where Englishmen are employed in Monaco and Monte Carlo are: Pharmacies Cruzel, Plissonnier, Dr. Gilmann, Marsan, Jouard, and Anglaise Beau-Soleil. The salaries paid are about equivalent to those of Nice, but living and lodging are slightly more expensive. Continuing our journey by train, we reach

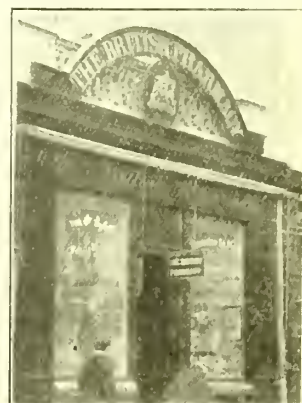
MENTONE

in about twelve minutes, passing the old village of Roquebrunne, and Cap Martin, where the ex-Empress Eugénie has a fine villa residence. Mentone, by reason of its perfect climate, is one of the most important winter resorts in Europe. It is situated along a beautiful gulf, and almost surrounded by mountains, the neighbouring valleys and plains being devoted to the cultivation of the orange, lemon, olive, and vine. It is quieter than Nice, having a resident population of about 11,000, and on this account is much appreciated by invalids and convalescents. In the neighbourhood are several large sanatoria, that at Gorbio being one of the best fitted in the world. The season is slightly longer than that at Nice, and is in full swing from December to the end of March.

Several English physicians practise there, but since the alteration in the French pharmacy laws it is now practically impossible for an Englishman to acquire the French diploma, which is a *sine qua non* to own a pharmacy. Some first-rate English chemists are, however, employed there, and they have no cause to grumble with their lot. The Pharmacie Blanchet is the largest establishment. The fitting-up, class of stock, and general appearance strongly savour of Bond Street. One of the windows was practically given over to Morny Frères' artistically got-up perfumes, and the Berkeley preparations were also distinctively displayed. The business is largely a dispensing one, and the two English assistants have not much spare time in the season.

Taglioni's British Pharmacy is situated in the Avenue Félix-Faure, and enjoys a very aristocratic connection. The ex-Empress Eugénie often sends her orders there, and the firm is entitled to use many royal arms. In the course of an interesting conversation with the proprietor I gathered that he is very proud of his English specialities, most of which had been introduced by Mr. Jeffcoat, Ph.C., who for a second season had charge of the English connection.

Taking a stroll as far as the end of the avenue, we reach the public gardens, opposite which, on the covered bed of the river, are the beautiful Carei Gardens. These are planted with tropical trees, and contain some beautiful statues. Here I saw some agaves about 12 ft. high. At the east side, at a prominent corner and amid ideal surroundings, is Oddo's old-established pharmacy. My photo, however, is spoiled by the indispensable sunblinds. A season at Oddo's is grand experience for a young assistant, dis-



TAGLIONI'S PHARMACY, MENTONE.

pensing being the chief feature of the business, which, owing to its unique situation, is removed from the regular shopping area.

Other pharmacies which are also in favour with Britishers, and where an Englishman is usually employed for the season, are those of Ferlet, Saucet, Berzos, and Renault. The man who has a knowledge of French is always preferred, and anyone with a previous season's experience can expect good terms. At the three latter establishments a room is generally provided. Pension at Mentone costs about 90¢. per month.

DOWN SOUTH.

(A Song of the Riviera.)

[From November to April annually something like a hundred British chemists' assistants are scattered over the French and Italian Riviéras in order to minister to the wants of the fortunate and wealthy Britishers who fly to these delectable parts to escape the rigours of a Northern winter; also to sell chewing-gum to Americans engaged in doing "Yurrupe."]

South, South, with the birds that fly
Over the sea to the lands that lie
Far from November fog and rain.
Down by the Mediterranean blue.
Pharmacians waiting for me and for you,
So let us hurry by boat and train.

South, South, and we turn our glance
From the Dover cliffs to the coast of France;
Will Fate be kind to us? Who can say?
Yet we have stepped from the beaten groove,
Wisely or not the time will prove—
At least we have stepped from the humdrum way.

South, South, with the same old crew,
Sun-seekers bound for the fair Beaulieu,
Nice, Mentone, Hyères, and Cannes.
Some with rheumatic pains and gout,
Some with their lungs that are wearing out;
They give the call for the Minor man.

South, South, to the same fair spot,
And the same gay cosmopolitan lot—
German, Russian, Hungarian, Yank.
If, when you meet them on your return,
Much there remains for you yet to learn,
You will have only yourselves to thank.

South, South, to the restaurant fare,
To the demi-bouteille of *vin ordinaire*,
Will you remember the Kennington days?
With the oranges growing in open air
And the carnival orgies to make you stare,
Will you approve of their foreign ways?

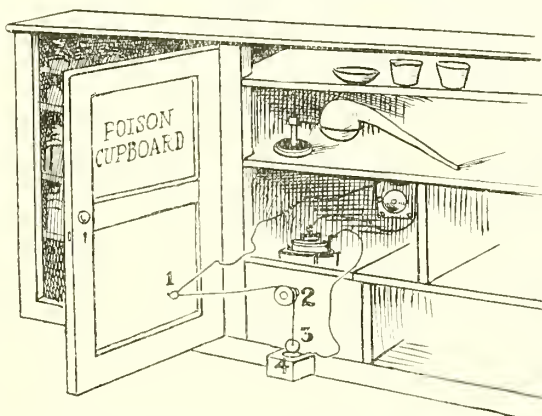
South, South, to experience new
And a knowledge of life that is but your due,
When you wander so far afield.
Something to think of in after years,
Half with laughter and half in tears,
When to the home-fret spell you yield.

W. H. A.

THE "MUTUAL" COMMERCIAL PHARMACIES so frequently hint that the average pharmacist seeks additional gain by the use of inferior drugs (or even substitutes) in making up prescriptions, that a French pharmaceutical journal has instituted an inquiry as to whether the mutual pharmacies themselves are guiltless in the matter. Two cases are quoted: one at St. Ouen, where the manager of a "mutualist" pharmacy was fined 20¢. for supplying remedies not in accordance with the prescription, and the other affecting two "mutualist" pharmacies at Lyons. The full text of the first judgment published contains some of those quaint touches in which the French *hussier* excels. This "ministerial officer," though he did not himself buy the incriminated medicaments, deposes that they were "wrapped in new fresh paper, evidently only just put up, and that the pill-box labels were in the same state of irreproachable freshness." The neat and natty manner in which the pharmacist, "mutualist" or otherwise, puts up his wares is taken so much as a matter of course by most of us that it is refreshing to read the worthy *hussier's* official reference to this professional tidiness.

Business Hints.

A Poison-cupboard Attachment.



No. 1 is a brass ring let into outside of the poison cupboard door; attach a thin wire (copper), and carry through pulley (2) screwed to a board at side of cupboard; at end of wire attach (3) a penny or any conducting metal. When the door is opened the metal weight lowers on to a small block of wood, on top of which another penny has been nailed (4). Attach No. 1 and No. 4 to the battery, and every time the door is opened the bell rings until closed again.

A Physician's Letter.

DEAR DOCTOR,—I should be glad if you will call in when passing to look through my pharmacy. I should like you to see for yourself where I buy my drugs, chemicals, sundries, etc., from, and to explain to you that no drug or chemical is used at my dispensing-counter which will not bear the strictest analysis. If, then, you will give me a share of your patronage well and good, but I would like you to *know* first. Thanking you in anticipation,

I am, Sir, yours, etc.,
J. W. BLANK.

Business Letter to the Public.

DEAR SIR,—They say "nothing succeeds like success," and doubtless you have often wondered why my establishment creates that impression. May I hold your attention for a moment while I explain?

My success is based upon the following solid foundations:

1. The law of purity and excellence is the primary law in the selection of our drugs and chemicals.

2. My nursery and medical appliances are selected from the best houses in England.

3. My assistants are instructed to treat every customer with promptness and courtesy.

4. My dispensing department is under my own personal supervision, and no drug which has not been analysed is used therein.

5. My whole business is under my own supervision and control, and should any complaint arise the proprietor is present to correct the same.

6. I take stock every year, and clear out all unsaleable and perished articles.

If you have not already dealt with me I shall be grateful for your patronage, but if you have, pray accept my grateful thanks and I hope that I may continue to merit your kindness.

I am, Sir, yours faithfully,
J. W. BLANK.

This letter should be printed as a typewritten letter on business memos and sent in addressed envelopes to people within the trading radius of the shop.

Commercial Travellers.

A commercial traveller is, as a rule, a gentleman, well informed, and willing to impart his knowledge to a pleasant *vis-à-vis*. He is the connecting link between his firm and the shop. You may never see the members of the firm; in fact, to the retailer, as a rule, the traveller is the firm. Sometimes he is not treated courteously by the proprietor of the shop. This is a mistake, and generally undeserved. Treat him pleasantly, and send him away with a smile on his face. He is quite human, and appreciates consideration.

The £. S. D. of the Minor.

By "THRIFT."

WHEN I decided to go up for the Minor examination many of my fellow-assistants quite envied me because I had the necessary cash. I know several men with the will who are well up in the subjects, and are prevented from trying their luck by a "chronic state of impecuniosity." It is for these that this article is written, and if I can persuade only a few of them to take my advice I shall not have written in vain.

From the day I completed my apprenticeship I have lived entirely on my own earnings. What money I required for the Minor I saved. When "out of my time" I secured a place as junior at 29s. weekly, and in eight months saved practically nothing. Then I got an indoor job, receiving 40s., 45s., and 50s. per year, and managed to save 50s. in the three years. I had always been told that at least 100l. is necessary for the Minor, so in my next crib I set myself to accumulate that sum. For twenty months I received an average of 57s. 6d. per week, and I was 60l. to the good in that time. I might have saved more, for, although I never go to a theatre, am a non-smoker and an abstainer (and therefore have never "lived," according to those who think they know), I probably spent, in other ways, quite as much as I saved by non-indulgence in these three most convenient opportunities for extravagance. For instance, I bought a number of books, a camera for 5l. 10s., and a bicycle for 7l.

With 110l. to my credit I considered I had sufficient to negotiate the exam., and it was sufficient, for my total expenses from the time of leaving my home for London until my return with the Minor certificate were 35l.

I secured my lodgings before I reached London. It took me three weeks to do it, and cost me 1s. 10d. in stamps (which sum is included in the above estimate), but as I only paid 15s. a week for board and lodging it was worth doing. The accommodation was not palatial, certainly, but the place was clean and comfortable. I had a bed-sitting room, had my meals by myself in another room, had good wholesome food and every facility for study. What else is necessary? I know that this is a remarkably low figure for lodgings in London—none of the men at college paid less than 18s., and then had about 2s. weekly in addition to pay for tram-fares; but my experience proves that such lodgings are to be found if a man has a mind to seek for them. I lived twenty minutes' walk from the college, and always walked it each way. The exercise did me good, and I saved money thereby. I had a cold-meat lunch at mid-day and a hot dinner at 6 p.m.

In my choice of a college also I considered the question of finances. I selected one where the fee was inclusive of books, etc., except one item of 15s. 6d. for chemical apparatus. The term fee was 8l. 8s. There was, of course, the fee of 10l. 10s. for the exam. (and that was the item in my expenditure which I begrudged the most). Beyond that the only item of any importance was for washing, and I must confess that I was not prodigal in the matter of collars and cuffs.

I did not work on Saturday afternoons or on Sundays. I went up to London with the one object of passing the Minor, and I went nowhere and saw nobody until after my exam. I visited none of my friends or relatives in London. I did not miss a day from college, not even to see the boat-race or the march of the Suffragettes. Easter coming just before the fatal days, I spent the whole of Good Friday and Easter Monday in study, and when, at the end of three months, the President shook me by the hand, I felt that that moment was worth all the self-denial which I had practised and the petty inconveniences which I had endured.

Here is a table of my expenditure, the only item it does not include being my railway fare to and from London:

Examination-fee	...	...	...	£10	10	0
College-fee	...	...	...	8	8	0
Apparatus	...	...	...	0	15	6
Lodgings (15 weeks at 15s.)	...	...	...	11	5	0
Washing	...	...	...	0	8	0
				£31	6	6

The balance of the 35l. represents every penny I actually spent between January 1 and April 15, and mostly went in a Saturday halfpenny paper, Sunday tram-fares, and a few necessary sundries. Now, have I done anything remarkable, which any other young fellow cannot do? My answer is an emphatic negative. Then why do so many men remain unqualified? I am only speaking to those who are willing to work and who are kept back by the lack of the legendary 100l. Bear these points in mind:

1. Make preparation for your examination the one aim and object of your stay in London.
2. Decide, with regard to expenses (like the young wife who was packing for the holidays), which of the absolutely indispensable things you can do without.
3. Make up your mind that you are going to get through at the end of three months, and go in then.

I do not wish to give anyone the impression that he can assimilate in three months all the knowledge that is required for the Minor. The man I am talking to is he who has steadily worked at the subjects ever since he began his apprenticeship. Also, I advise no man to arrive in London with 35l. in his pocket and expect to get through his examination. This would indeed be a forlorn hope. What I do wish to say is that 100l. is not an absolute necessity, neither is 150l. or any of the other fabulous sums which are mentioned in this connection.

A gentleman who had recently apprenticed his son told me that he understood from the employer that 200l. is the minimum required by any man who wishes to qualify. Considering that this was said after I had qualified, I was able to relieve his mind considerably.

If, after all your care and trouble, you are not successful, what are you to do? Why, what any man of spirit will do, try again! Make up your mind that the second attempt will be the final attempt, and your success is practically assured. I know that the Minor statistics belie this statement, but the statistics do not show what percentage of the failures are honest workers. A number of men are sent up by their parents to be made into chemists, but intend to get as much pleasure as possible out of their stay in the big city. They sit up half the night drinking and gaming, and consequently are absent from college in the morning. They go to the theatres at least once a week, and if there is any special ceremony or celebration on in the City they are there also. These men shirk each examination as it comes round, valiantly deciding to enter "certain" for the next one, or else, because their parents want a "run for their money," they go in to "have a shot," with no possible chance of passing. These are the men who force up the percentage of failures; they talk loudly about luck and the unfairness of the examinations, and deter many of the able and promising ones from "taking the leap." Do not be discouraged, therefore, by the experiences of other men; go in with the intention of getting through, and you will succeed.

We are simply considering finances in this article, and six months will cost you 65l.—this being the actual cost to a friend of mine who was successful on the second occasion.

I do not consider the alternative "part-time" method of preparation, as I do not believe in it. No man (or only a few magnificent spirits) can prepare successfully for the examination within a reasonable time by attending college all day and working in shop or dispensary all the evening, or *vice versa*. The estimates of cost furnished by those who have tried this method generally omit the amount lost in full-time wages on account of the longer time taken for preparation. My main object in writing this article is not to induce my fellow-assistants to enter for the Minor with the barest possible amount of cash, but to induce them to save money so that they may enter at an early date. There are few juniors over twenty-one who are not able to save 70l. in two years if they like. A few suggestions as to how they may go about it will not be out of place:

Keep an account of every halfpenny received, and cut out every item of unnecessary expenditure.

Guard your purse as you would guard your honour.

Don't be mean, but, for your own sake, be thrifty!

Don't idle away your spare time; there's no surer road to frittering away your spare cash. Devote it to healthy recreation and preparation for your examination.

Keep a banking account at the post-office, and when you receive your "screw" add it to your little pile. There's no excuse for keeping out very much for current expenses. Remember that every penny bears interest.

Money is, of course, a poor thing compared with such realities as health, honour, and love, but it makes all the difference between independence and servitude, and one never values it so much as when one comes to want a few pounds and has not got them! If, therefore, any assistant who reads this is still unqualified through lack of the necessary cash, for the sake of his own future he should start to-day and save money. Then when he emerges, successful, from Galen Place, he will feel nothing but thankfulness for this advice. And the habits of thrift and self-denial which he will have established in the meantime will prove invaluable in after-life. (83/19.)

Another View.

The foregoing reflections by a chemist who is now enlarging his experience abroad could no doubt be endorsed by many others in pharmacy who have had to fight their own way in the world. The difficulty is really not one of the accumulation of money, but of gathering knowledge, which is far more material, up to a point, for success in pharmacy. We have an example in Mr. Brittain, this year's Fairchild scholar, from whom we had a call the other day, and who, at our suggestion, has written about how he spent his time since he entered pharmacy. His sentiments are akin to those of the writer of the previous article. Mr. Brittain had the Minor certificate in his hand when he called, and we borrowed it for reproduction, as it has not previously figured in our pages. The certificate is a somewhat meagre document, measuring 15 in. by 10½ in. The same style has been used since before the 1868 Act, when it was the "Assistants' " certificate. Mr. Brittain writes:

Accounts of examination experiences have appeared in these pages from time to time, but this is intended rather as a *résumé* of the manner in which, from the commencement of my apprenticeship, I have worked to obtain the qualifying certificate. Fate has not provided me with an illimitable purse, and I knew from the first that success depended upon my own efforts. I mention this by way of encouragement to many who, I know, are very apt to think, "Ah! I could easily do likewise had I but the means to pay expenses."

I was apprenticed in September 1901 to Mr. W. D. Cox, of Messrs. J. Cox & Son, Grantham. I was fortunate in having a good master, and one who takes a great interest in his apprentices. He informed me at the start what I had to do in the way of study, and what subjects the examinations would comprise. I had passed the examination of a body recognised in lieu of the old "Preliminary," but my certificate did not cover the necessary "Latin." So I had to prepare for some equivalent examination, and from September to December attended the Latin class two or three times a week at the local technical institute, and entered for the subject in the Cambridge Junior Local, passed, and duly registered as a "student or apprentice." This done, Mr. Cox started me upon the B.P., the idea being that I should get a general knowledge of all the substances, the constituents of the galenicals, and doses. Each morning he questioned me upon what I had learnt the previous evening. In this way I obtained some insight into the Pharmacopœia.

The next winter I attended evening classes in botany and chemistry at the technical institute, and at the end of the session passed the examination in elementary botany (Science and Art Department). I had obtained the chemistry certificates while at school. During the summer months I did a fair amount of field botany, and continued the classes during the next winter. In this way I learnt all the botany necessary for the Minor, perhaps more. Far from being an irksome task, it became a pleasure. Many students say they hate botany, which, I think, is because they do not approach the subject in the right spirit, and shirk it. To me it is a pleasure to recognise the wayside flower, to know its name, and some of the wonders of its structure. It adds interest to a country ramble, and makes botany a recreation instead of a bore.

Thus in easy stages I continued to study throughout my apprenticeship. I never made a hardship of it, but by beginning early and making gradual progress I got a good groundwork of general knowledge. After five years at Grantham I went to Cheltenham. There I was in the employ of Mr. A. C. Saxby (successor to Messrs. Procter & Forth). After being there a few months (still continuing to do a little study) I decided to compete for the Fairchild Scholarship. I had not many opportunities for serious study (a chemist's hours are not usually conducive to that), for after a long day's work studying does not appeal to one; but I

did my best, and used to get up for an hour or two's reading in the morning before business, and so leave myself free for the evening. Time passed quickly, and brought the Fairchild examination, for which I went to Cardiff. I cannot say that I thought I had been successful, but one morning I was the happy recipient of the good news. Nottingham being my home, I decided to go to the School of Pharmacy in that city, where, under Mr. S. Royce, its Principal, I studied from last September to the recent January examination. I found the work I had done since entering on my apprenticeship most useful, and with but little extra effort I was enabled successfully to pass the examination at Bloomsbury Square. Of

Pharmaceutical Society of Great Britain.

We the undersigned Examiners appointed by the Council under the Provisions of the Charter of Incorporation and the Pharmacy Acts 1852 & 1868, having examined
Ernest H. F. Brittain,
do hereby certify that he is duly qualified to be
Registered as a Chemist & Druggist
under the provisions of the 31 and 32 Vic Cap. 121

John F. Harrington, Chairman.

<i>E. H. Farr</i>	Examiners	<i>W. J. Shephard</i>
<i>Reginald H. Phillips</i>		<i>Horace Finemore</i>
<i>Thomas Tickle</i>		<i>H. R. Le Sueur</i>
<i>F. E. Fatch</i>		<i>W. Palmer-Wymer</i>

London January 9, 1908. N° 17056

the actual examination I will say nothing, except that I found the examiners most amiable, gentlemanly, considerate, and fair, and I am sure no one who has conscientiously studied need fear to appear before them.

If I may take the liberty of advising intending students, I would say briefly:

Set your goal before you; learn what you have to do, and do it; and do not be afraid of doing too much.

Learn gradually *festinare lente*, but that does not mean "procrastinate"! That I find is the error of too many. They consider while the Minor is far off they need not trouble. "I've lots of time," "To-morrow will do." Yes, and the time comes when they should be ready, but it finds them unprepared.

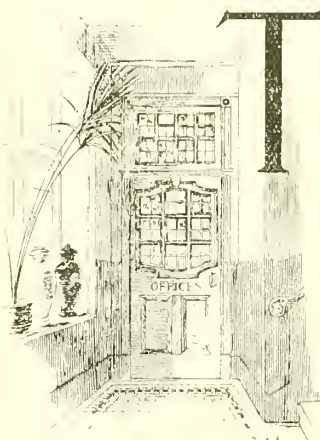
Take advantage of your opportunities and compete for one of the scholarships. The "Fairchild" offers exceptional advantages, and even if success does not crown your efforts, you have not lost, but rather gained. The donors of the scholarship offer you a great opportunity, and do all they can to induce you to study.

Remember so much work done is so much less to do. Above all, persevere, and why should you not reap the reward?

The "Practical Treatise of Galenical Pharmacy," by Dr. D. Joaquin Olmedilla y Puig, Professor of Practical Pharmacy and Pharmaceutical Legislation at the Madrid Faculty of Pharmacy, is the most important pharmaceutical volume recently published in Spain. The author—a member of the committee for the revision of the Spanish Pharmacopœia—is particularly qualified for his task, possessing considerable literary gifts and some historical lore in addition to his practical knowledge of the subject.

The Westward Way.

"Our Town Traveller" visits the New Premises of Messrs. Parke, Davis & Co., near Regent Street, London.



THIS is the fourth time I have been called upon to describe the housing of Messrs. Parke, Davis & Co. in London. The times and places stand thus :

March 7, 1891, a floor on 43 Holborn Viaduct, E.C. : "We do not propose to carry stock in the meantime," said Mr. F. M. Fisk then.

November 3, 1894, the building 21 North Audley Street, and factory and warehouse in North Row, W. : "In the warehouse . . . four floors are devoted to stock and packing purposes."

April 28, 1900, at 111 Queen Victoria Street, E.C., the house previously used by the G.P.O. as a

headquarters branch of the Savings Bank, occupied as offices and warehouses, the laboratories having been removed to Hounslow.

September 1907, removed to a new building at the corner of Beak and Great Pulteney Streets, W., which has been fitted up as offices and warehouse.

Mr. Fisk's "in the meantime" was not a lengthy process. When he came from Detroit in 1891 he was accompanied by his brother, Mr. Harry Fisk, and a single clerk. Since then they have gathered round them other 390 people, 144 of whom are at the offices and warehouse in the West-end, 131 in the laboratories at Hounslow, 27 travellers in the United Kingdom, and the balance 88 are representatives and employees attached to branches in other parts of the Eastern hemisphere, saving Australia and New Zealand, where Detroit directly controls. From 3 to 130 times 3 in seventeen years is by no means a bad record.

Who is it that has written about Great Pulteney Street ? Thackeray, I think. It was once a very fashionable residential place, flooded of an evening with footmen, and if it did not catch Thackeray's eye it deserved to. It runs at right angles to Beak Street, and the new P.D. British headquarters are bounded on the west by the one-time fashionable street, on the east by Lexington Street, and on the north by Beak Street. The office entrance is in Great Pulteney Street, and, without much inquiry, one gets to it by walking in an almost straight line from the north-east corner of Piccadilly Circus. The offices are a new building, which Mr. F. M. Fisk and Mr. E. G. Swift (general manager of Messrs. Parke, Davis & Co.) selected as an appropriate place to move to from Queen Victoria Street. It has the same number of floors as the old place (five), but considerably more space—20,000 square feet—and has magnificent natural light on three sides. The basement floor of the new premises is used for shipping and storage, the ground floor for stock, the first floor for administrative and office work, the second for typing and direction of the foreign connection, the third for samples, a composing and printing room, and various other subsidiary departments. Bare walls and floors were what the firm took over, and the whole of the fitting (except the first floor) has been done by their own carpenters. The shelving and cupboards for stock are done in well-seasoned white pine wood, plain varnished, without staining, and the result is excellent, as there is full light-reflection.

Entering the office by Great Pulteney Street, one finds that the original concrete staircase demanded by L.C.C. regulations has been brightened by mosaic on the treads and white marble on the faces of the steps, while double hand-rails of mahogany complete the elegant appearance of the entrance. Ascending this staircase to the first floor, what meets the eye is a solid oak door, which the C. & D. artist has utilised for the initial letter. The London County Council

insists upon staircase doors in such buildings as this being made of hard wood which resists fire, and only fire-proof glass is allowed in them, if at all. There is glass in several of the P.D. doors, and it is all of the fireproof type, set straight into beds of copper, whereby it loses nothing of the artistic character. Entering this doorway one walks straight into the general office, where the woodwork, from



A BATTERY OF TYPING-MACHINES.

floor to ceiling, is also in oak. The counter-screen is of brass. Two large views of this are reproduced. The first shows what catches the visitor's eye on entering. At the far end of this picture are seen the private rooms for the accountant (Mr. Holloway), Mr. Harry Fisk, and Mr. Maben. To the right on entering are several private rooms, including one for the town representatives. At the extreme left of the photograph, and beyond the umbrella-stand, is a reception-room, and on the Beak Street side of it—i.e., the corner of the building—is Mr. F. M. Fisk's room. The glass partitions of these are seen at the rear of the second view of the general office on p. 149.

This first floor has the grip of the P.D. European business. Practically everything done is controlled from and



MAILING AND FILING ROOM.

recorded here, consequently it is not surprising to find many strange devices for facilitating correspondence, filing records, advising customers, and getting the day's work in the whole building done smoothly and expeditiously. From his floor I was taken by life to the third. Two staircases, back and front, ensure easy exit from the building ;

all the doors (except on the first floor) are of teak, and open outwards, and the male members of the staff are prepared to cope with untoward flames should they ever arise. The top floor is divided into a number of compartments—*e.g.*, literature and samples stored in commodious white-wood

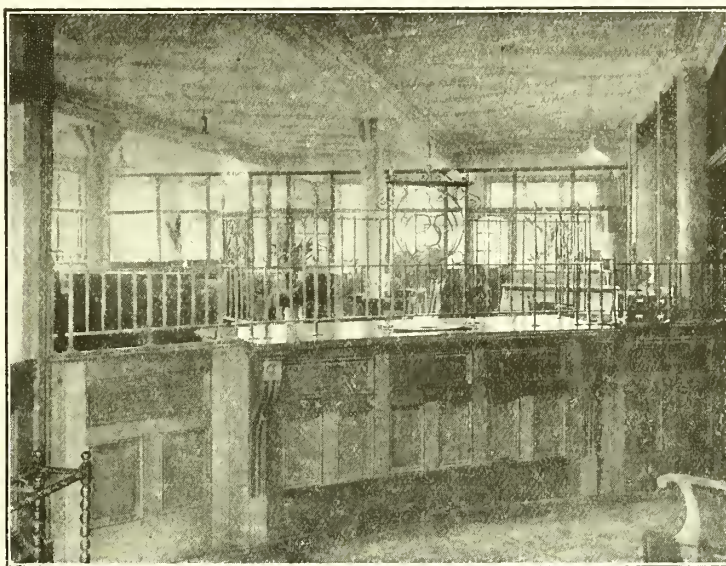
split into two, forming a typists' room and the mailing department. Portions of these are shown in the pictures on p. 148. I noted compact methods of letter-filing, a predominating system of card-indexing, which includes directories of physicians and pharmacists that are



MR. F. M. FISK.



MR. H. J. FISK.



GENERAL OFFICE FROM LOBBY.

cupboards; the telephone exchange (both external and internal wires); the printing department; medicine cases; and serum-packing. The last is only a finishing department, for all the P. D. serum goes to Cambridge, where it is tested by Dr. Sims Woodhead, certified, and bulbed, then it comes on to London to be packed in "outers."

Descending by staircase to the second floor, I found that half of it is devoted to foreign correspondence—French,

always ahead of published directories (since they are kept up to date by the firm's representatives), and the men and women who have charge of this department are willing to hear of anything new which will improve the records, facilitate reference, or shorten labour. It would be hard to tell them what they don't know.

Once more going downstairs, we passed the office floor in order to inspect the ground or warehouse floor. It seems



GENERAL OFFICE LOOKING TOWARDS LOBBY.



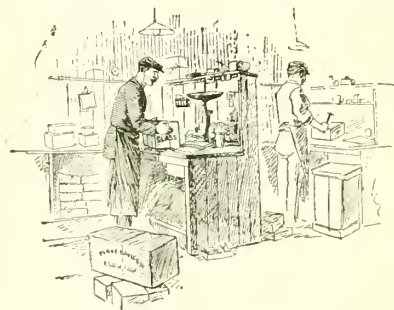
ST. PETERSBURG OFFICE ENTRANCE

On the right is Mr. F. M. Fisk, on the left Mr. D. O. Ruffman (resident manager, and between them a member of the Russian staff.)

German, Italian, and Spanish clerks (some of them pharmacists or physicians) are here at work, and correspondence in nearly every European language is received and replied to daily. This department occupies the east half of the floor, and faces on Beak Street. The west half is

a reversal of the customary condition of things that only one floor of a five-floored London warehouse should be devoted to stock and order-filing, and I remarked upon the fact to my guides when I entered the floor; whereupon I learnt that the stock is replenished daily from Hounslow.

and the shelving and stock-cupboards represent 27,000 sq. ft. of surface, or 7,000 more than the floor-space of the building. I was going to remark here that the stock-shelves are most ingenious; probably they are with respect to the thought that has reduced the storing arrangements to the veriest simplicity, but having seen them, and realised that not an inch of space is given away, I cannot imagine how the arrangement could have been different. There is a space of 3 ft. between each two rows, and electric lights (switched on from either end) give abundant illumination. The stock is as systematically arranged as the whole building, and the head warehouseman can, at a moment's notice, not only tell you how much of this medicament or that he has in stock, but how much he has on order, and how much he has used in any stated period. On the Beak Street side of the floor, as well as the Great Pulteney Street side, are long mahogany counters for sorting orders, and on a portion of one I watched the process of testing "Glaseptic" atomisers, every piece being filled with an exceptionally dense oil and blown, so that any piece which does not give a fine cloud of the oil is rejected. After the test they are thoroughly cleansed, dried, and mounted. The north-east corner of the floor is the Town Order department, with its own entrance (there are, by the way, six distinct entrances to the building). Adjoining this is the Pricing department, which I recall as an office packed with filing portfolios, which enable the clerks to trace any transaction at a moment's notice. The south-east corner of the floor is the receiving and despatch department. Here come all the goods from Hounslow, or straight from Detroit, also the empties (if such there be), and cases for customers are delivered to various carriers. The goods that come in go straight from the street upon a hydraulic lift, which carries them to the basement floor. Here again the L.C.C. step in and ward off accident by requiring efficient protection. As the lift goes down to the basement rails automatically fall and bar the entrance from the street and the edges of the gap. We follow the lift in its journey, and when the word is given for it to go up again bars automatically fall, to keep the unwary away from the hydraulic arrangements. A few minutes pass before I realise that I am in a basement, the natural light is so splendid and the ceiling so high. I was so struck with the packing-arrangements that I asked my colleague of the C. & D. art department to sketch it for me. I have not seen anything like it before. Each packer has a cubicle to himself, with counter, drawers, and all that is needful. He gets the goods for any particular order in a trolley basket from the stockroom, judges the space they will take up, selects a case, and proceeds to pack. Everything is at hand, there is no waste of time, he finishes the package, and someone else removes it for despatch. There are several of these cubicles. In this basement I also found the firm's staff of carpenters still hard at work on alterations. Here, too, are lavatories for the male members of the staff, and under the



PACKING CUBICLES.

street is a strong-room for the books, which are brought down nightly by lift on trolleys and wheeled into the room, where they rest until next morning. Older books repose round the walls. Another similar room is used for storing serums so that they may not be affected by changes of temperature. Remote from these rooms and to the east of the basement is the hot-water apparatus for heating the building, every floor of which has its pipes, and the individual rooms radiators.

This is a somewhat superficial glance at the fourth home of Messrs. Parke, Davis & Co. in London, but its magnitude and the other calls upon the space of this Winter Issue preclude my going into detail. The leading characteristics of the house are systematic arrangement and solidity of equip-

ment combined with elegance and comfort. When I interviewed Mr. F. M. Fisk at North Audley Street in 1894, he remarked, "We are not here to-day and away to-morrow; you may say we have come to stay," which requires modification so far only that his energies have fructified to the extent of 130 times 3 since he and his brother came to establish the branch of the house in 1891. They are Michigan men. Mr. F. M. Fisk, after his training in retail pharmacy, went in for the wholesale and joined the staff of Messrs. Parke, Davis & Co. in 1885. They sent him to the Old World. He travelled through Australia and New Zealand, went north to Japan, visited China and the East, and established the P.D. products in India. He knows the world from Peking to Peru, and has been in every capital of Europe. Officially he is known as the "European manager," but his dominion extends to South Africa. His brother, Mr. Harry Fisk, is a good second to him. When the North Row factory was established it was he who took charge of it, and this department has grown until, as I have already stated, there are 131 workers at the Hounslow factory under Mr. Brown, a Canadian and pharmacist who spent many years in the firm's factories at Detroit and Walkerville, Ont. I understand that the new buildings at Hounslow are approaching completion. The firm's aim is to make everything here that is galenical. It can scarcely be expected that they could repeat in this country the magnificent biological laboratories which they have established in Detroit; but looking back upon the seventeen years that they have been in London it would be foolish to prophesy that they will not.

Medical Cleanings.

To Abort a Cold.

AFTER blowing the nose vigorously rinse out each nostril with a weak (pale pink) solution of potassium permanganate. With the head held well back try to retain some of the solution by plugging each nostril with cotton-wool.—*The Hospital.*

Pilocarpine in Alopecia.

DR. PRINGLE reports the case of a patient who entirely lost the hair of his scalp, and in whom vigorous local treatment had altogether failed. Nitrate of pilocarpine, $\frac{1}{4}$ grain, was then injected into the scalp hypodermically. In a week there was a growth of downy hair over the scalp. The dose was increased to $\frac{1}{2}$ grain with satisfactory results.—*The Hospital.*

Eczema of the Hands.

BATHE the hands frequently in oatmeal baths and wear rubber gloves. Apply the following ointment:

Salicylic acid	...	...	...	3j.
Glycerin of starch	...	...	...	3iiss.

And then dust with this powder:

Salicylic acid	...	...	...	3j.
Zinc oxide	...	...	...	3v.
French chalk	...	...	...	3j. 3ij.

Psoriasis.

MR. HUTCHINSON'S favourite local treatment is acid chrysophanic, hydrarg. ammon., ad. gr. x., liq. carbonis detergentis mx., adipis benzoat. 5j. Remove all scales, as far as possible, by washing or a warm bath, and then rub the ointment into each patch for half an hour at bedtime. The ointment may be left on all night, but if this is disagreeable it may be wiped (not washed) off.—*The Hospital.*

Fluoroform in Whooping-cough.

ACCORDING to M. Paul Tissier, fluoroform (CHF₃) is a specific for whooping-cough ("Ann. de Chimie Analy."). He uses it in saturated aqueous solution (2.8 per cent.), the solution being colourless, odourless, almost tasteless, and only slightly toxic. Up to two years the dose is graduated as follows: First day, one drop of the solution after each attack; the second day two drops; the third day three drops; and so on till not more than 100 drops are administered each day. For adults the dose is up to 30 grams of the solution per day.

In the Market.

"Jay Mack" unburdens himself in regard to the manner in which chemists' businesses are offered for sale, and tells from experience why many of them do not sell.

AGREED that ordinary businesses do not sell readily. I have chapter and verse in strongest proof of this statement. The object of these remarks is to explain why. First, here are the A, B, C, and D of the matter:

A. More money is needed now for stock and expenses than formerly, owing to advertising of patents, self-drugging, higher standard of living calling for endless sundries, greater knowledge of the people calling for scientific and photographic side-lines, loss of doctors' dispensing, forcing us into trade for a living, and thus is required a wider range of side-lines than even Boots keep. All this means that 600*l.* is now needed, where 200*l.* was enough thirty to forty years ago.

B. The inability of the ordinary assistant to save money, owing to increased standard of living, while the luxury of life—bicycles, theatres, billiards, drink, holidays, etc.—all of which (although there has been a big rise in wages compared to thirty years ago) prevent men from saving money.

C. Commercialism was sprung on the old chemist unawares. He had no business experience to tackle the increasing stock problem. The increase of travellers (all with wheedling tales of wonderful sales to other men) caused by the increased number of wholesalers eats into his time.

D. The wrong policy is pursued by most chemists of stifling "patents," although they sell quickly and bring other trade. The chemist has to keep "patents," but often persists in pushing his own preparations intended to replace some well-known articles, though they land him with perhaps 100*l.* worth of expensive cartons, fancy labels, special bottles, queer tins, and cranky containers.

I go no further along the alphabet, but I ask if these are not common truths. The chemist keeps on, makes a good, perhaps an increasing, living on his personality and the favour of his friends, but he has no idea how his stock is piling up. He has plenty of money invested, and keeps no books beyond customers' ledger and bought ledger (which lots of men still think shows them how they stand). It is a going concern, and ought to sell easily, most people would say. So a time comes when the chemist or his executors advertise

THE BUSINESS FOR SALE

somewhat in the following manner (the parenthetical remarks being mine):

£2,300 returns.—Magnificent Business; high-class trading; same hands 20 years; fitted in solid mahogany, with gold-leaf lettering glass labels to every drawer (although the labels seldom, if ever, describe the actual contents, and the Cascaza bottle is labelled in gold "Cinchona," with a slip label Cascaza at back, and scores of others same state); heavily stocked; grand sale of own preps. (one or two perhaps, and the others dead "uns, which need a £3 a week man to sell one per day); very few patents; beautiful house, 8 rooms (need 2 or 3 servants); price about £2,200, or £500 goodwill and valuation (of the mahogany lumber-yard and museum of dead stock).

Now, considering the statements A, B, C, and D, which I defy any reasonable man to controvert, how can you expect to find buyers for a business like that? There are not twelve men in England who have saved 1,000*l.* out of wages or who can borrow that amount on any ordinary retail business; nor are there twelve fathers who will lend 1,000*l.* for any ordinary retail business. You are therefore "up against a dead wall." There are few buyers, for the reasons stated.

Coming back to the advertisement. You reply to it, and get what is called "full particulars," but they tell you little you do not know from the advert. When you send a list of questions—especially if you ask gross profit, net profit, returns last two years, wages, stock, and opposition—you cannot get a straight answer; it is only after two or three attempts that you get the figures out of him. You can see he hates to be catiched; he is over-sensitive, and he thinks you doubt his word when you ask for references or confirmation. You know he tells the truth, but he knows so little worth telling. You hesitate to ask questions which you really ought to know. Finally this is what he tells you:

Profits, about a third of turnover.

Stock, about 1,000*l.*

Boots do little here, except fancy goods: So-and-So

travellers told him (but you may know they take 100*l.* a week at drug-counter alone).

Few patents; but add up his yearly purchases, and you find the usual third or half of all purchases is for patents. He is genuinely surprised, but convinced there is some error.

Vital details he is ignorant of; some, but very few, conceal them purposely. I am convinced of that.

Ill-feeling is created in the minds of both buyer and seller through this sort of thing. There is nothing open or frank about it—it is all concealment, secrecy, and whispering where no such thing should be; whereas if they were businesslike they might settle down as father and son to a month's hard work together and argue amicably. I maintain that when heat arises it is due to the ignorance of one of the parties of the ordinary methods of business.

Many of these excellent old gentlemen have a fine trade and an immense hold on their districts which could quite easily be transmitted to a buyer (as goodwill) if they would only look things in the face (things as they are, not as they think they ought to be); and these goodwills I, for one, will be glad to pay for if handed over to me in proper form rather than take a lot of dirty old and over-bought stock at valuation. Although 300*l.* of dead stock is a millstone for years, 300*l.* of live goodwill means a good living from the very day you enter.

A combination of a young, energetic, businesslike buyer with money and an old, businesslike, reasonable, and well-known and experienced seller is one to take a lot of beating, and there are scores of businesses all over England lying waiting (and have been waiting for years) to be so operated on. There must be a few buyers, young men with 400*l.*, to 600*l.*, who might borrow, say, 100*l.* more, and who would do well in business, and men in business who want to move, but will not venture so long as these absurd prices and over-bought stocks are being offered for sale.

WHAT IS WANTED.

First, we want firmly to establish the fact that stock must not (at transfer) be more than (roughly):

A quarter of first 1,000 <i>l.</i> returns	...	£250
A fifth of second 1,000 <i>l.</i> returns	...	200
A tenth of third 1,000 <i>l.</i> returns	...	100
		£550

Stock of 550*l.* to 700*l.* (varying with conditions) is plenty for an overturn of 60*l.* a week.

Second, the seller should agree to hold a stocktaking sale for a month or two months prior to transfer, or unload on to other chemists, or hospitals, or doctors, or the public what the buyer and seller can agree is overstock or season goods. Why should the buyer stand all the loss?

Third, special terms should be agreed on for the valuer's guidance in the case of stock not sold by transfer-day, such as

Old photographic, 50 per cent. off cost.

Old perfumes, 50 per cent. off cost.

Old patents, 25 per cent. off.

Optics to be rigidly prepared by weeding-out process or total sale through the *C. & D. Supplement* if not wanted by buyer.

Old drugs and old labels to be thrown out.

Surely it is too much to expect that any valuer can know by some process of intuition just what stocks are unsuitable to local conditions? You can keep 7*s.* 6*d.* chest-protectors clean for years, but is that any reason why a buyer should have to take over twenty or thirty when the normal sale might be half a dozen a year?

Fourth, the buyer to give his services for a week or a month or longer at a nominal salary (to keep him going) and help with the work of preparing the place for transfer.

Fifth, the whole place to be systematically cleaned out and washed (and parts whitewashed) unless structural alterations are contemplated.

Sixth, a special room or shelves to be set apart for disputed goods until transfer-day.

Seventh, recipe-book to be worked up from the usual odd scraps of paper which seem to do duty as a record of the shop's specialities.

One month's hard labour will amply repay a buyer. He is an extra man without definite duties; he has time to boss the work, and the staff or odd men help him by turns. Besides, there is the chance it gives a buyer to become

known to customers and tradesmen during a sale and clean-up like that.

How can a valuer, in a two or four days' valuation, be expected to know all of the following items?—

5,000 cartons, in good order, but no longer used.

50,000 labels, look good, but no longer used.

200 stock-bottles on dispensing-counter, gummed up, and not opened for years.

Fifty cameras may look all right, but are dead stock if normal sale is a dozen a year.

20,000 mounts: 15,000 may be, and mostly are, out of date, though well kept and clean (not worth 1d. a dozen for price-tickets).

50% of "patents" is not much, but heaps of shops have 100% worth not in sufficient demand to warrant being there at all.

50% of sundries is nothing, but when it comes to certain appliances and old snake bottles, it ought to be written right off.

10% of perfumes, many of them ten to twenty years old, mere spirit, no smell, worthless.

5% of empties may be on buyer's hands because firms defunct, or labels off, or tins rusted, or bags rotten, only discovered when returned to some firm.

10% of drugs in parcels may look all right, but may have been on shelves in back warehouse for years.

5% of dispensing bottles may have been rained on in the yard for twelve months or more, and you can crack dozens of them between your fingers.

5% soon lost in apparently good sealed-up tins of paint, enamel, saline, and citrates, and own baby-foods.

5% wines not much to have on a top shelf, with fly-blown labels and unsaleable at more than half-price.

5% in musty seeds, such as hemp, canary, or last season's garden seeds, is not a big lot, but they are all dead loss to the buyer.

No valuer can go into these thing in a four-days' valuation unless they have been looked over before and displayed for his decision and the circumstances admitted. Besides the fact that the higher the stock the more commission and fees to pay, the valuer values it as it stands, when as a fact 300% to 400% stock ought not to be there at all. He is there to value, not to say what stock appears to him to be unsuitable for the locality. When he does the work he is entitled to the fee (and a very hardly earned fee it often is).

No buyer can expect old gentlemen of sixty or seventy years of age to prepare their stocks unaided.

No assistants, as a rule, are worth a cent at the work. They can alter and shift the stuff, but it is not improved when they have done it.

No seller can get proper value for his goodwill, nor is it fair or just to turn over the stock as it is without being overhauled.

No man in England can prove the contrary.

The Old Made New.

WHEN the British Pharmaceutical Conference visited Dundee in 1902 the visitors had a surprise in the shape of a communication on the home manufacture of galenicals by Mr. John H. Thomson, whose pharmacy, 101 High Street, Lochee, has been in existence nearly half a century, and externally and internally appeared to the public as a very ordinary druggist's shop. In the back room, nevertheless, they managed to distil the B.P. aromatic waters, make tinctures and fluid extracts, as well as other galenicals, and assay them when necessary, meanwhile retailing drugs and sundries in commonplace manner in the front, and dispensing dozens of prescriptions daily. Mr. Thomson has associated with him in the business Mr. Neil George Munro, his stepson, whose uncle, a medical practitioner in the village, founded the business and transferred it in due course to his brother George, to whom Mr. Thomson was apprenticed. There also John Munro, the well-known electrician, was wont to spend his holidays while attending the Glasgow University, where he was an assistant to Lord Kelvin.

The shop has been for years too small for the business, but it is only recently that Mr. Thomson has been able to better it. Last summer he secured the shop adjoining, but instead of making one out of the two he transferred the old fittings and stock next door, while Messrs. S. Maw, Son &

Sons refitted the old shop completely. The pictures show the result. The partition between the back and front was removed, and a dispensing counter placed well back, so that the customers' part of the shop is enlarged, and splendid light for dispensing is provided by a window. Here a desk and prescription-book cupboard have been permanently



SERVING AND DISPENSING COUNTERS.

fitted as a continuation of the wall-fixture. The second photograph shows the other corner of the shop, in front of the counter. The fittings are all new, even the window having a glass enclosure and new shelves, which add greatly to the elegance of the place, without repelling old customers of the more humble order, to whom "George Munro's" is still the emblem of moderate charges. The fittings are in mahogany, and while being well designed pharmaceutically Mr. Thomson tells us that the enlarged scope for display has decidedly



THE PUBLIC'S SIDE.

improved the retail part of the business. The newly acquired shop is entered by a door between, and has the old fittings in it. It makes a well-combined office, laboratory, and warehouse. The increased space enables the staff to do more in the manufacturing way, and it is contemplated to add model steam evaporating-plant such as German pharmacists use. Mr. Thomson does not pretend to make everything or put up every simple or speciality; but the spare time of the working day, whose busy spells are when doctors call and the village population are not at the mills, is occupied by work which utilises the pharmacist's qualification as fully as possible. Its nature has been well indicated in Mr. Thomson's B.P.C. paper.

SOME ALARM has been created among Japanese patent-medicine vendors, who hear that the Governor-General of South Manchuria intends to make a monopoly of the patent-medicine industry.

The Soap Specialists.

A Visit to the Works of Messrs. Edward Cook & Co., Ltd.

COOK'S Road, Bow Bridge.

What changes have been effected by the hand of Old Time during the last decade or two! We do not need to seek out the oldest inhabitant to discover men who can recall the days when they took a rowing-boat at Bow Bridge and sculled gaily up the River Lea, through pleasant meads and by banks of wild flowers; or the anglers who boast of the trout caught in this famous river of Izaak Walton's, and also their wonderful catches of pike, perch, roach, and bream. To-day all is changed. Bow Bridge itself has been rebuilt, and electric cars run thence to Epping Forest; busy shops and up-to-date villas lining the route.

"Bow" is now a most important centre of trade, and Cook's Road, which is flanked on one side by the Lea, leads to the East London Soapworks, the home of the Soap Specialists, Messrs. Edward Cook & Co., Ltd. It is a rare thing in London to give the name of a living concern to a road, yet here we have it.

About the time (1791) that Leblanc discovered how to make soda from salt, a soap-factory was established in Norwich by a Mr. Cook. In 1815 the firm removed to London, where under the style of Brickwood & Cook it was continued until December 30, 1829, when the firm name became "Edward Cook & Co.," which it has remained to this day, saving the addition of the word "Limited" since its incorporation in October 1898. In 1859 the business was removed to Bow.

Several other old-established soapmaking businesses have since been incorporated with it. In 1875 Messrs. Williams & Sons' manufacturing business at Clerkenwell was taken over; and in 1900 the old-established firm of Anderson & Cattley was merged into Cook's. The latter business some years ago was known as Barlow & Henderson; and previous to that it belonged to Mr. Wm. Toulmin. Messrs. Cook have an invoice dated April 4, 1792, for curd soap, which Wm. Toulmin sold that day at 90s. per cwt., a price which makes the mouth water in these days of big tablets and small profits.

The writer recalls these facts with a feeling of loss, for he heard them from the lips of the late Mr. Samuel Hall, when they were standing together in the directors' room at the new warehouse and offices at Bow, scanning the precious old documents which stirred Mr. Hall's memory. Edward Cook was his father-in-law, and Mr. Hall could recall the removal of the business from Bankside to Bow. His brothers-in-law—Edward Ryder Cook, William Cook, and Henry Cook—had been associated with him in developing the art of soap-making along modern lines, until a third generation joined them, Mr. Thos. Alex. Cook and Mr. Leonard Cook, sons of Mr. E. R. Cook, and Mr. Godfrey Hall constituting the board of directors, Mr. T. A. Cook being a managing director. It was under the guidance of the last-named that this visit was paid.

The several buildings of the works cover 500,000 square feet of ground area and floor space, and there is still a little room for extension, for as long as trees grow within the boundary walls of a factory there is room for more bricks and mortar; and there are trees and other vegetation within these walls. But as one walks through the factory one hears such words as "This is 1859," and later years to indicate the extensions which have been made from time to time. Beginning at 1859 and so on, we get a fair working idea of the art of soap-making, and catch sight as well of the boundary-lines between the different expansions. In the 1859 house we glance for a moment at the pan-room where for half-a-century vats of 30 to 60 tons capacity have been boiling soap. Big wells they look, some with seething, steaming contents, others with the surface simmering down or smooth, waiting for the draining from the supernatant mass of the salted liquor below, which ere long will go into the glycerin-house. Beside these still useful heritages of earlier days is installed a mammoth vat holding 100 tons. One notes that the appendages to this vat are the same as to the others, and a question elicits the explanation that these are modern labour-saving

provisions. Thus, from the tallow-melting house a system of pipes convey the liquefied fat from the melting-pans to the saponifying-vats; and when the saponification process is complete, other pipes, like giant serpents, suck up the soap and serve it to the cooling-frames. In spite of its half-century of use, this old boiling-house is up to date in mechanism, and what electricity can do in lighting and power is done, as several installations testify; but Mr. Cook points with pride to a chain lift which was put in the house in 1859 and still works smoothly. In its day it has carried millions of tons of material up and down. Cheek by jowl with it is a new electric lift whose achievements we pass on to our successors. Now we have stepped into a house of more recent date, where there are twenty soap-boiling vats—"pans" seems too puny a word to describe these mammoth kettles—and as we glance into them we realise how varied are the uses of soap and how the characteristics of the base change with the purpose of the finished article. Here, on the lower scale, is a yellowish-brown paste which is destined for "Carbolic" or "Golden Penny," and at the other end of the scale is a vatful of something which looks like the cold-cream pot overgrown; this is the white base which goes to the toilet-soap department after a sojourn in the "frame-room." We glance over three floors which are so called. There is nothing in all industry so monotonous. Each frame looks like a bougie-mould grown to a height of 6 ft., a similar width, and breadth of a foot. Of these, 400 stand in serried rows on each floor, with walking-space between, waiting until the contents are just solid enough to remove. It is thither that the system of pipes carries the soap from the vats, and the skill of the soapmaker is tested by the manner in which he keeps the frames going, so that without waste of labour or time they may not be empty for a single day. They represent capital and rent, and as there are just enough of them, our guide tells us, trade may be hindered or diverted if the overseers do not use them skilfully.

There is no mechanism in a soap-frame, which simply consists of two upright ends of cast iron, with movable sides clamped together. When the soap in it cools down to solidity, the sides are removed and the soap is cut into slabs. A long wire with a handle at each end is the cutter. One man adjusts the wire upon the soap-wall, another pulls the wire steadily, and the two remove the slab. To trace the destiny of these we have to go to the cutting-rooms.

The slabs of soap as they come from the frame-rooms are cut into household bars in an old-fashioned manner, because there is no modern machine which does it so economically, neatly, or speedily. This is simply an arrangement of one inclined plane for the slab and a movable frame with wires stretched across, which a man pulls forward, when the wires pass through the slab and leave the latter in household bars. The chief demand nowadays, however, is for tablets and special soaps, such as the "Lightning Cleanser" or "Money's-worth" soap, the "Topsail" carbolic, the "Golden Penny," and the like. The slabs of each of these soaps are machine-cut into pieces the size of a tablet, quickly hand-stamped in the manner which is described later when dealing with toilet-soaps, and deftly wrapped and boxed for the retailer. The demand for these household tablets is enormous, judging from the speed at which we saw them turned out and the figures which Mr. Cook mentioned. Later in the visit we came to a splendid warehouse which was solely devoted to the packing of coupon soaps; this again adding to the impressiveness of the popular effort to keep clean. On another floor were several pans devoted to the compounding of pumice soap, and the kindred grease and grit removing "Lasso" also is compounded separately from the ordinary soaps. Elsewhere were frames of blue mottled soap, which we saw cut and packed for such markets as China, India, and Trinidad, where it

is still in large demand. Soft soap, too, has a factory for itself with eight pans, and the latest addition to the works is a factory for "Foap," a washing-powder (FOam soAP), the compounding of which entails the use of ingenious drying and grinding machinery, and the ingredients are



SOAP-BOILING.

so nicely blended that one does not, even in the factory, detect the odour of the free ammonia which plays so important a part in the detergency of this soap powder.

An inspection of the toilet-soaps department was the particular object of this visit. The factory where these are made is situated by the company's private railway siding, which joins the Great Eastern Railway. Here the white bar soap is brought from the main factory, and the first thing done is to chip it up by machinery into little bits. The power used comes from a 35-h.p. electric motor, but there are also gas-engines, all such things being duplicated as a provision for breakdown. The chipped soap is next placed in drying-cupboards into which hot air enters at the bottom and can only get out at the sides, thus flowing over the chipped soap. There is 30 per cent. of water in the soap when it enters the cupboards, where it loses 18 per cent., the rest being "water of combination." To get rid of that 12 per cent. means decomposing



TOILET-SOAP MILLING-MACHINE.

the soap. The next process is to mill the soap, and this needs little explanation, for the English-made milling-machine shows how it passes through the corrugated rollers in thin ribbons. It is during this process that the soap is perfumed and coloured if desired. Next the

milled soap is forced at great pressure through a pipe, back into bars, looking, as it protrudes through the mouth of the pipe, very like ointment flowing from a collapsible tube. The operation is seen under the arm of the man to the right of the next picture. He is actuating a cutting-machine of Cook's own invention which gets over an objectionable feature of coloured soaps of oval shape—viz., the darker colour at the ends when a cake is made from a piece of soap with straight ends. Obviously there is as much colouring matter at the ends as in the centre, and as the ends are compressed more than the centre the cake looks when finished darker at the ends. Cook's machine cuts the pipe of soap into rough ovals, which are then taken to the stampers, whose work is illustrated in another picture. There we get a glimpse through a doorway of the finishing-off and packing room, a magnificently lighted and lofty apartment, where girl labour is solely employed. We show two views of it, the first as it strikes one on entering and showing one of the racks where the trayfuls of soap tablets are stored as they come from the stampers. Every cake is subsequently examined by these girls, trimmed, and polished by hand before it is wrapped and boxed. Chemists' own labels as they come from the printers are here arranged alphabetically, as shown in the second of the two pictures. There are hundreds of these, and the company have matters so organised that the production of any particular brand of soap has been reduced almost to



TABLET-MOULDING MACHINE.

the "while you wait" basis. Their own brands are also numerous, the following being brands or titles given to distinct classes:

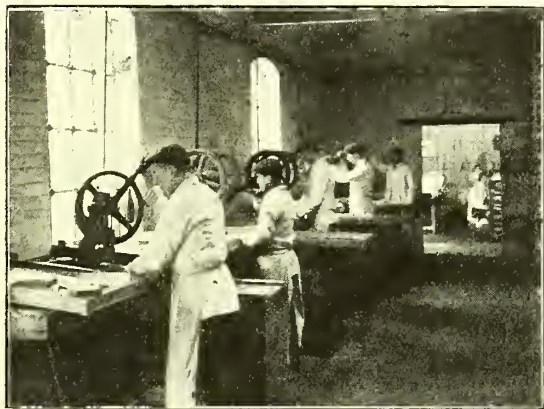
"Alicia"	"Elector"
"Anthrasol"	"Frontier"
"Asepto"	"Golden Gleam"
"Atalanta"	"Gold Mead"
"Bath"	"Handy Tablets"
"Bouquet of Roses"	"Hygeso"
"Bow" brands	"Jupiter"
"Bulldog"	"Lasso"
"Bungalow"	"Royalist"
"Cassandra"	"Riviera"
"Club"	"Savon de Luxe"
"Coolarma"	"Savon Mignora"
"Cold Cream and Oatmeal"	"Solace"
"Creamy" shaving-stick	"Sorbet"
"Day Dream"	"Throne"
"Dorina"	"Tourist"

Another interesting operation is the needle-marking of toilet-soaps by the Macdougald patented process, of which the company are owners. This consists in giving each cake a sort of hypodermic injection of a harmless colour-mixture, in the form of letters which remain without the slightest diffusion or fading as long as the cake of soap lasts. It is a troublesome process, and took a great deal of experiment (even after the perfecting of the patent) before it worked smoothly. Each cake goes through several hands, for it is washed after the needles have done their duty.

To describe everything there is to be seen in the works

would take us far beyond the limits at our disposal to-day. There are, for example, an engineers' and blacksmiths' shop, where the upkeep of the machinery and appliances is seen to; a general engineers' store, which contains stock of everything, from brushes to wheels, required in the works; saw-mills and box-factory; stables on two floors with accommodation for three score of horses; boilers with mechanical stokers; and the electrical generating house to supply both light and power. We mention these merely to indicate that the company are up-to-date in their appli-

the soap-vats is conveyed by pipes. The liquor contains from 3 to 5 per cent. of glycerin and about 10 per cent. of salt. The plant for concentrating this is a marvel of ingenuity and compactness. In conception it is a double separator, such as one would use for an alkaloidal shaking-out process. The larger bulb at the top (a few hundred gallons capacity) and the smaller one below, with long pipe between, receives the salt, which is dropped into a centrifuge beneath it, there to be dried sufficiently to be used over again. As the liquor wends its way through



STAMPING TOILET SOAP.



WHERE CHEMISTS' SOAPS ARE PUT UP.

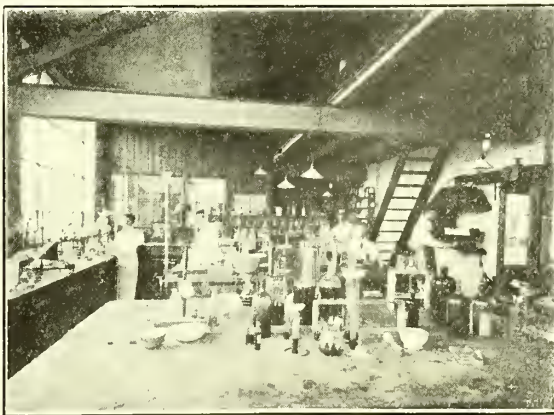
ances. In our walk we had also seen a few things which were worthy of note in generalising our impressions, which are reducible to two groups—(1) scientific and (2) commercial—with concentration in the magnificent new offices and warehouses recently erected. It is on the top floor of this building that the analytical and experimental laboratories of the company are situated. The equipment of these was designed by the late Mr. Samuel Hall, assisted by his son, Mr. Godfrey Hall, F.C.S. The north light of the laboratories is excellent. At the back of the picture is the observation-window of the principal's private room, where the most delicate instruments, books, and the like are kept. The work in these laboratories is varied, but is chiefly in the direction of economical production and purity of ingredients and products. Associated with this

this plant it is concentrated and the glycerin distilled, all being done automatically yet continuously.

On the commercial side the business is particularly strong. Mr. Thos. A. Cook is a believer in modern methods. We get evidence of this in the spacious offices on the first floor of the new building, windowed on three sides, so that there is abundance of light. The bookkeeping done here is so voluminous, thousands of customers being on the firm's books, that everything has had to be systematised to the extreme, and the bookkeepers are saved running about by having liberal service of boys to fetch and carry. Ledgers are arranged on trolley racks, which stand by the desks, and are nightly returned to the strong-room. This racking system simplifies the work, since each man has a bit



TOILET-SOAP PACKING-ROOM.



A CORNER OF THE RESEARCH LABORATORY.

is the perfume-compounding room downstairs, where stocks of essential oils and other scents are stored; there we handled for a moment a book that is worth a fortune—the company's recipes. It has taken more than a century to compile the book, and every formula in it is what is commonly called a "working" one. None but the principals ever handle the book; for to the workers every mixed perfume is a number or a name, and the ingredients they do not know. Another instance of scientific development is the glycerin house, to which the salt liquor from

of territory to attend to. The "Savetime" invoices are used. The whereabouts, day by day, of the travellers are known as part of a system of advice which works smoothly. These are the most commonplace examples of a system of organisation which keeps the clerical work pertaining to goods up to date, and there are also arrangements for conserving and extending business. Rooms for the individual directors, for dictation and typewriting, adjoin the office, as well as a board-room. Mr. Thos. A. Cook superintends all the advertising done by the firm, and the de-

signing of wrappers, showcards, and such material. A special warehouse is devoted to this printed material, and there one may see not only a wide range of art, but a multiplicity of language, for Cooks' soaps go to all parts of the world.

One of the most striking features of the place is the harmony between master and man. All are workers, and all enter the works to take a place at the bottom. Some of the best positions are filled by men who began as boys at a few shillings a week; and the lads that begin know that they have the same chance. Piecework is the rule wherever it can be carried out; "no loafing" is the eleventh commandment. The business is conducted on a profit-sharing system, and the employees try to make the profits as large as possible by economy in production and magnitude of output. There are various social organisations in the works, a good ambulance corps, and an efficient fire-brigade. In every department we observed orderly working and good provision for labour-saving and accident-prevention. Mr. Cook's cheery word to this man and that indicated his sympathy with them individually, and the responses their respect for him. When our tour of inspection had been completed, and we returned to the office, we found on a show-counter there a display of the products which are reserved for chemists' trade, and these were in a sense further evidence of the care and thought which we had observed in every stage of their production.

Choosing the Spot.

By A RETAILER.

THE young chemist who seriously faces the future will find no other prospect before him unless he goes into business. THE CHEMIST AND DRUGGIST has shown us that a large capital does not appear to be absolutely necessary if the right man is in the venture. What prevents young men of energy and experience from launching out for themselves? As managers they are taking all the discomforts incidental to retail business life—its long hours, monotony, absence of leisure, and often lack of appreciation. To escape calumny they must show a net profit, on a small stock (which generally is not of their own choosing), for their employers, at least equal to their own salaries. They take the risk of losing their berths at any time through sale of business, etc., and, as they cannot always remain young and "smart," must eventually be pulled up with no provision for old age. For one thing, the salary is regular, and time slips by unseen; but apart from the question of funds, the difficulty seems to be in "choosing the spot."

In modern business the only essential to success is—people. What your competitors are doing does not appear to play such an important part as in the past, when that restless movement of the shopping public had not declared itself. The chosen shop, then, ought to stand centrally. There should be no permanent open spaces adjoining; the district must not be cut up by railway or canal; there must be no hospital or provident dispensary at hand, where malt, cod-liver oil, etc., to say nothing of sundries, may be had for the asking; and the bread-winners' sources of income should be as varied as possible.

Which is better, to start a business or buy one? To buy a business with capital under 200£ is more risky than starting one, the reasons being lack of power to develop in the past, probability of existing stock being unsuited to the neighbourhood, not to mention cases where showcards and dummies seem to be the only clean and wholesome things about, and the danger of an indifferent repute. There is also a strong possibility of the premises being unsuited to carry out a progressive policy.

Before deciding to start a business the choice between opening in a new neighbourhood and fitting-in in an old must be settled. Opening in a new neighbourhood carries with it these risks: (1) Failure of a neighbourhood to "take"; (2) the inevitable decline of the class of residents, as the houses get faded; (3) coming competition when things begin to move; and (4) exhaustion of capital in the waiting stage.

Fitting-in somewhere means the keenest cutting by established chemists, who, of course, would sooner die than

surrender ground, and probability of being under heavier expenses than they; but, in its favour, there is the actual population *in situ*, whose support may be tempted by sidelines until the wave of cutting has subsided. In both cases unqualified competition will have to be met.

When a district commends itself the first thing is to discover the actual class of residents, whether they are in keeping with one's experiences and sympathies, so as to be able to gauge their requirements and understand their point of view, so as to discover their wants and supply on the spot a valuable asset which will defy cutting and ensure pleasure in the work. It is well to discount heavily its seeming possibilities, seeing that the rate of profit is steadily falling, through the purchasing power of the public generally being on the wane; and a given turnover for a new business will consume more capital each year till one's own proprietaries assert themselves.

In opening a new business in an old district, the shop must be on the main road, and the position should show, on the directory map, after all qualified and unqualified competitors have been allocated, a certain amount of unbroken ground to depend on for family trade. It must stand well forward, be on the short-cut side; if a curved road, with no obstacle to the passing public in the block, such as sloppy fishwater pavements, piled up boxes, or abutting walls to deflect fine ladies elsewhere.

Corner shops always pay well for the extra expense. Good windows are a *sine qua non*.

In making inquiries bear in mind that neighbouring shopkeepers prefer a business to an empty shop, regardless of its prospects, and will underestimate the number of people a chemist requires, though their topical knowledge is valuable. While you have the whip hand, see that the landlord does all that you can make him do, so that you may not accidentally find, when too late, that your slender capital must be touched for laying on water, etc., when a little forethought would have given you the maximum advantage over difficulties in your chosen spot.

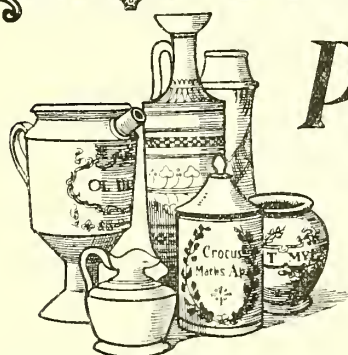
Finally, having decided on the spot, keep all small expenses down and your courage up, so that you may stick to your business convictions until your venture is an established success.

(85/20.)

AT EXAMINATION TIME.



PHOTO APPLIANCES IN BELGIUM.—Folding and pocket cameras are popular in Belgium and are in considerable demand, says H.M. Consul-General at Antwerp. All accessories, such as plates, films, printing papers, etc., of British make have a good sale, but Continental sizes predominate, and it is of little use for British firms to endeavour to sell the sizes used in the United Kingdom.



PHARMACEUTICAL & CERAMICS.

FRENCH COLLECTIONS.

THE Central Pharmacy of the Parisian Hospitals is an institution interesting in almost all its aspects, but one of its most special and remarkable features is the collection of pharmaceutical pottery. As (in spite of periodical propositions made by those aware of its value and variety) this has not yet been thrown open to the public as a museum, it is comparatively little known to the average Parisian, and even less so to the pharmacist or ceramist whom business or pleasure may call to the French capital. It comprises some 600 specimens, nearly all of French manufacture, and many of high artistic merit and professional interest.

As "every schoolboy knows," nearly all the existing Parisian hospitals are installed in convents confiscated at the time of the Revolution—in fact, the Central Pharmacy is itself an ex-convent. These convents were usually endowed

jars were usually reserved for the electuaries—those monuments of mediæval polypharmacy of which half-a-dozen still figure in the French "Codex." Here one may see the receptacles in which they were formerly enthroned in the place of honour, alike in the apothecary's shop and the hospital pharmacy—the wondrous "Theriaca" (or Venice treacle), which contained no fewer than seventy ingredients, including vipers and castoreum; the "Catholicum" (compound electuary of rhubarb); the "Diascordium," wherein honey is used as an excipient, and which contains a small quantity of opium; the "Confection of Hyacinthe" (compound saffron electuary), for which a small quantity of precious stones was once used (and which nowadays contains "porphyrised eyes of crayfish" and "terre sigillée"), etc.

Smaller in dimensions, but curiously characteristic in shape, and interesting as having been the exclusive appanage of the apothecary of times gone by,* is the spouted "chevette" (fig. 1) or syrup-jar. This was used for oils and aqueous preparations, as well as syrups, until glass bottles came into general use. The most recent specimens have an earthenware lid or cover, but the older ones were tied up (like jam-pots) with paper, parchment, or linen.

Of the huge containers used for liquid preparations, the two handsome specimens from the Trousseau Hospital, marked "Sirop de Limon" and "Sirop de Pas d'Ane" (fig. 2), are excellent samples. In ordinary pharmacies these large-sized jars would be in coarse white or brown ware. Closed with a bung or simple round of cardboard, they would stand on the floor under the counter or the stock-shelves. But these are highly ornamental specimens; the blue-rose



FIG. 1.—CHEVRETTES.

by wealthy and aristocratic patronesses, who, with that little leaven of personal ostentation which characterises the "pious founder" in all ages, often presented "their" institution with a set of pharmacy-jars emblazoned with the armorial bearings of the noble family to which they belonged. It is whispered that (even in those days) cases were treated in charitable institutions that could well afford to turn elsewhere, and also that many a worthy apothecary broke the Tenth Commandment as he compared these strikingly handsome hospital ceramics with the coarser utensils of his own *officine*.

The laicisation of the Parisian hospitals, which finally severed the connection existing for so many centuries between the various religious bodies and the hospitals of the French capital, is a matter of modern history (see *C. & D.*, December 14, 1907, p. 887). As the nuns left each institution such of the ancient pharmacy-jars as seemed worthy of preservation were conveyed to their present home, thus forming a collection of specimens of ancient French drug-pots which is probably unequalled either in France or abroad. The fact that in most cases each piece is inscribed with the name of its former contents gives additional interest to an inspection. The largest and handsomest



FIG. 2.—SPOUTLESS SYRUP-JARS.

ornament seems to indicate they come from the renowned St.-Cloud pottery.

The small jar for cassia pulp standing between these two pitchers in the photograph (fig. 2) is from the Necker Hospital, in the rue de Sévres, an establishment founded by the

* Dr. Dorveaux, librarian of the Paris School of Pharmacy, has pointed out that while grocers or surgeons might have other drug-pots in their premises, the "chevette" was the monopoly of the apothecary. On several occasions domiciliary visits were made, and these articles—when found in non-pharmaceutical premises—seized and confiscated.

famous Minister of Finances of Louis XVI. This particular jar only bears the baronial coronet, but the larger pieces ("Hyacinthe" and "Theriaca" jars, etc.) are ornamented with the arms of Necker ("on a field gules a swan argent on a lake of the same," and a bunch of grapes) and of his wife ("on a field or an altar sable on a terrace sinople surmounted by a flame natural"). The "pulpe de casse" (see inscription on pot) was a popular medicament in those days. Readers of Molière's "Malade Imaginaire" will remember Toinette's allusion to the "bonne casse." These pots were all made in 1778 by Thery, the potter of the rue de la Roquette.

Hardly less historic than Necker was Beaujon, the founder of the Beaujon Hospital (the "St. George's" of Paris, lying as it does in the aristocratic neighbourhood between St. Philippe du Roule and the Parc Monceau), the famous financier of the latter days of the Royal régime, who was fanned to sleep daily, we are assured, by the dames of France's proudest aristocracy. The jars from the Beaujon Hospital are particularly charming specimens of the purest Louis XVI. ornament, as may be judged from the engraving of the receptacle for "Orvietan" (fig. 3)—



FIG. 3.—VASE FROM BEAUJON HOSPITAL.

another of the historic electuaries, which figures, it will be remembered, in Scott's novel "Kenilworth." In this collection one notices the inevitable "Diascordium" and "Hyacinthe," the Opi. Mesenterici; Duobus salis, Epsom salts, Ex. de quinquina, Sel de lait, P. d'Aloès, P. Bal de Sthal (*sic*), etc.

Another artistic set in Louis XVI. style is that of which the "Elec. Diaprun" jar (fig. 4) is a sample. These were



FIG. 4.—LOUIS XVI. JARS.

possibly made at Rouen or Limoges. The electuary in question was a popular laxative, taking its name from the prunes which were its principal ingredient. There was a "simple" electuary and a "solutive"—this latter contained scammony. "Oleum Laurinum" and "Ung. Basilicum"

are inscribed on similarly roomy receptacles, and largest of all is the "El. Catholicum." On smaller pots of the same collection one notices (in Latin) the names of extracts of borage, fumitory, jalap, black hellebore, catechu, senna, valerian, and blessed thistle.

The bottles marked "St. Jean de Dieu" have a capacity of about 3 gals. each (fig. 5). They bear on the one side the figure of the saint (apparent in the engraving), and on the other the inscription "A. Pauer R." (Aqua Papaveris Rhœadæ). Slight mistakes in orthography (Latin or French) are common enough on these old drug-pots. One may be noted—"A. Saluæ" for "A. Salvia" (fig. 6), etc.

The pottery of the Charité Hospital was made at Paris in 1690, and has a simple floral decoration. This set is rich in



FIG. 5.



FIG. 6.

STOCK JARS FOR AROMATIC WATERS.

specimens of the cylindrical jars termed by the French "pots à canon," and by the Italians "albarelli." There are also the usual receptacles for distilled waters and huge Orvietan and Diascordium jars.

Passing by the blue-and-white ware of the "Enfants Assistés" (on much the same lines as the last-named), we find sixty white-and-gold jars from the Ville d'Evêque Hospital. There is an assortment of ointments—basil., merc., arcaci, lauri, citrinum, populeum, antiopht., etc. The set from the Hôpital du Midi (manufactured at Chambéry) shows an equally large choice of jars for pills or pill-mass—ante-cibum, angelicæ, Bontii, Bacherii, cynoglo, hydrarg. b., Mortonii, Fulleri, saponacæ, etc.

But to describe in detail the features of this assembly of pharmaceutical ceramics would be to tax unduly the patience of the reader. One can only advise all interested in the subject to inspect it for themselves (permission from the chief pharmacist is necessary).

Numerous specimens of old pharmaceutical pottery may be found in the various Paris museums, but none of these collections are so complete and characteristic as that of the Pharmacie Centrale des Hôpitaux; and in most cases—at the Louvre, the Cluny Museum, etc.—the Italian pots are much more numerous than the French. In the new Museum of



FIG. 7.—NIDERWILLER WARE.

Decorative Art (recently annexed to the Louvre) may be seen a few samples of the celebrated Strasburg ware of the eighteenth century (pots marked "Ung. Rosat")

pharmacy of the hospital still retains its quaint old drug-pots; at Château-Thierry and other towns remarkable collections may also be found. Among the provincial museums the "Musée Lorrain" of Nancy deserves special mention as containing an artistic and extensive collection of snow-white Niderwiller ware drug-pots in the purest Louis XV. style (fig. 7). These bear the crown and monogram of the good King Stanislas (father-in-law of Louis le Bien-aimé), an enlightened patron of art, as all visitors to the modern capital of French Lorraine can attest. They come from the pharmacy of the Hospital of St. Charles. In this case the names of the drugs were not baked on the pottery, but added by hand as occasion required.

So far collections belonging to public bodies have been referred to, but this is not an inappropriate place to illustrate the private collection of M. A. Dutertre, pharmaceutical chemist, 36 rue Victor-Hugo, Boulogne-sur-Mer. Mr. J. D. Marshall gave some particulars of these pharmacy-jars in a lecture before the Western Chemists' Association at the end of last year (*C. & D.*, December 21, 1907, p. 942), when several specimens were exhibited. There are over 360 pots in the collection. One of the illustrations (fig. 8) is the interior of the London Pharmacy, Mr. Dutertre being shown at the counter. As will be seen, many choice specimens are shown at various points of vantage in the pharmacy, and visitors to Boulogne often exhibit considerable interest in the collection. The other groups (figs. 9 and



FIG. 8.—INTERIOR OF THE LONDON PHARMACY, BOULOGNE-SUR-MER.

and "Cast. Moch.," and adorned with wreaths of roses in the natural colours on a white ground), as well as a few of

pharmacy, and visitors to Boulogne often exhibit considerable interest in the collection. The other groups (figs. 9 and



FIG. 9.

the blue-and-white seventeenth-century pots (without inscription) which were supplied to the Pharmacy of the Invalides.

A visit to a French provincial museum or hospital pharmacy will often prove of interest to the collector of historical pottery. Just outside Paris, at St. Germain-en-Laye (where King James II. of England died in exile), the



FIG. 10.

10) are of characteristic specimens. M. Dutertre has several very fine old mortars.

THE first issue of the "Chemiker Zeitung" of this year contained an appreciation of the late Lord Kelvin, illustrated with a portrait of Professor J. J. Thomson, of Cambridge. That was not the only mistake in the number, for our contemporary also stated that Mr. J. H. Dinwoodie had been elected President of the Transvaal Pharmacy Board, and that the late Mr. J. W. Bowen was an examiner to the "Pharmaceutical College."

Formulae from the Japanese Pharmacopœia.

Aqua Carbolisata pro Desinfectione.

Carbolic Acid Water for Disinfection.

Take

Carbolic acid ... 5 pts.
dissolve it in
Water ... 94 pts.
and to the solution add
Hydrochloric acid ... 1 pt.

Aqua Rosæ.

Rose Water.

Mix

Rose oil ... 4 dps.
Lukewarm distilled water 1000 c.cm.
and shake them up for a while.
An almost clear liquid, having an agreeable odour.

Emplastrum Adhæsivum Anglicum.

Court Plaster.

Dissolve

Isinglass ... 10 pt.
in so much hot water as to get 120 parts of the strained liquid; take 60 parts of the solution and paint a stretched white silk cloth several times with it, drying it every time; gradually mix the remaining 60 parts of the solution with

Alcohol ... 40 pts.
Glycerin ... 1 pt.

paint the above silk cloth with the mixed solution in the same way as before; lastly, paint the back of the same silk cloth with the tincture of benzoin, and dry it well.

Court plaster should be lustrous, and stick well to the skin when moistened.

Keep in a dry place.

Hydrargyrum Oleinicum.

Mercuric Oleate.

Take

Mercuric chloride ... 32 pts.
dissolve it in
Distilled water ... 320 pts.
and after triturating
Medical soap ... 64 pts.
with
Oleic acid ... 3.6 pts.
dissolve the resulting mixture in

Distilled water ... 352 pts.

mix these two solutions; boil for ten minutes and let the precipitate subside; decant the supernatant liquid; wash the precipitate several times with boiling water, until the washing gives almost no turbidity with silver nitrate solution; finally dry it on a water-bath.

Mercuric oleate is a light greyish-yellow substance of ointment-like consistence, having a somewhat saponaceous odour.

Keep with care, protected from light.

Liquor Ferri Albuminati.

Solution of Iron Albuminate.

Take

Dried white of egg ... 35 pts.
dissolve it in
Distilled water ... 1000 pts.
strain: slowly pour the strained liquid, under agitation, into a mixture of

Solution of oxychloride of

iron ... 120 pts.

Distilled water ... 1000 pts.

allow the iron albuminate here formed to precipitate completely; neutralise, if necessary, with the sodium hydroxide solution diluted with twenty-four times its weight of water. After waiting till

the precipitate subsides, decant the clear upper liquid, and pour distilled water on the residue; decant the clear upper liquid again after subsidence, repeating the same operation several times, until a portion of the decanted liquid, acidified with nitric acid, produces no more than a slight opalescence with silver nitrate solution; collect the precipitate on a filter-cloth; transfer it into a large bottle previously weighed, and dissolve it by shaking in the mixture of

Sodium hydroxide solution 2.25 pts.

Distilled water ... 50 pts.

to the resulting solution add

Alcohol ... 150 pts.

Cinnamon water ... 100 pts.

Aromatic tincture ... 2 pts.

and finally add distilled water so as to make the whole quantity up to 1,000 parts.

By transmitted light a clear, and by reflected light a slightly turbid, reddish-brown liquid, showing almost no alkaline reaction, with a faint taste of cinnamon, but almost without ferruginous taste.

Solution of iron albuminate contains about 0.4 per cent. of pure iron (Fe = 56).

Mel Rosatum.

Honey of Rose.

Take

Rose leaves, medium cut ... 1 pt.

pour on them

Dilute alcohol ... 5 pts.

extract, in the cold, with frequent shakings for twenty-four hours; express; with the filtered liquid, mix

Purified honey ... 9 pts.

Glycerin ... 1 pt.

and evaporate the mixture down to 10 parts.

A clear, brown liquid, having a pleasant odour.

Pastilli.

Pastils. Troches.

With exception of those specially prescribed, pastils are prepared by mixing well dried and finely powdered medicinal substances with finely powdered milk sugar or cane sugar, and moistening with dilute alcohol so as to form a suitable mass for making them, each piece being made to weigh 1 g. In cases when the mass does not well stick together, a small quantity of gum arabic may be added.

Pastilli Acidi Borici.

Pastils of Boric Acid.

Take

Boric acid ... 100 pts.

Each pastil should contain 2 g. of boric acid.

Pastilli Acidi Tannici.

Pastils of Tannic Acid.

Mix

Tannic acid ... 5 pts.

Milk sugar ... 95 pts.

Each pastil should contain 0.05 g. of tannic acid.

Pastilli Antipyrici.

Pastils of Antipyrine.

Mix

Antipyrine ... 25 pts.

Milk sugar ... 75 pts.

Each pastil should contain 0.25 g. of antipyrine.

Keep with care

Pastilli Bismuti Subnitrici.

Pastils of Bismuth Subnitrate.

Mix

Bismuth subnitrate ... 30 pts.

Milk sugar ... 70 pts.

Each pastil should contain 0.3 g. of bismuth subnitrate.

Pastilli Cocaini Hydrochlorici.

Pastils of Cocaine Hydrochloride.

Mix

Cocaine hydrochloride ... 5 pts.

Milk sugar ... 995 pts.

Each pastil should contain 0.005 g. of cocaine hydrochloride.

Keep with care.

Pastilli Ferri Lactici.

Pastils of Iron Lactate.

Mix

Iron lactate ... 5 pts.

Milk sugar ... 95 pts.

Each pastil should contain 0.05 g. of iron lactate.

Pastilli Hydrargyri Bichlorati.

Pastils of Mercuric Chloride.

Mix

Mercuric chloride ... 50 pts.

Sodium chloride ... 50 pts.

and colour the mixture with a red coal-tar dye.

Each pastil should contain 0.5 g. of mercuric chloride.

Keep with special care in well-stoppered bottles protected from light.

Pastilli Hydrargyri Chlorati cum Talco.

Pastils of Mercurous Chloride with Talc.

Mix

Mercurous chloride ... 50 pts.

Milk sugar ... 36 pts.

Starch ... 22 pts.

Talc ... 12 pts.

Each pastil should contain 0.5 g. of mercurous chloride.

Keep with care, protected from light.

Pastilli Ipecacuanhæ.

Pastils of Ipecacuanha.

Mix

Ipecacuanha ... 1 pt.

Milk sugar ... 99 pts.

Each pastil should contain 0.01 g. of ipecacuanha.

Pastilli Kalii Chlorici.

Pastils of Potassium Chlorate.

Mix

Potassium chlorate ... 10 pts.

Milk sugar ... 90 pts.

with care.

Each pastil should contain 0.1 g. of potassium chlorate.

Pastilli Menthæ.

Pastils of Peppermint Oil.

Mix

Peppermint oil ... 1 pt.

Sugar ... 99 pts.

Each pastil should contain 0.01 g. of peppermint oil.

Pastilli Morphini Hydrochlorici.

Pastils of Morphine Hydrochloride.

Mix

Morphine hydrochloride ... 5 pts.

Milk sugar ... 995 pts.

Each pastil should contain 0.005 g. of morphine hydrochloride.

Keep with special care.

Pastilli Natrii Bicarbonici.

Pastils of Sodium Bicarbonate.

Mix

Sodium bicarbonate	10 pts.
Milk sugar	90 pts.

Each pastil should contain 0.1 g. of sodium bicarbonate.

Pastilli Natrii Salicylici.

Pastils of Sodium Salicylate.

Mix

Sodium salicylate	50 pts.
Milk sugar	50 pts.

Each pastil should contain 0.5 g. of sodium salicylate.

Pastilli Opii et Ipecacuanhæ.

Pastils of Opium and Ipecacuanha.

Mix

Opium	5 pts.
Ipecacuanha	5 pts.
Saffron	5 pts.
Milk sugar	85 pts.

Each pastil should contain opium and ipecacuanha, each 0.025 g.

Keep with care in well-stoppered bottles.

Pastilli Santonini.

Pastils of Santonin.

Mix

Santonin	2 pts.
Milk sugar	98 pts.

Each pastil should contain 0.02 g. of santonin.

Pilulæ Chinini Sulfurici.

Pills of Quinine Sulphate.

Tako

Quinine sulphate	30 pts.
Tartaric acid	1 pt.
Tragacanth	1 pt.
Glycerin	4 pts.

and incorporate them to form a suitable mass for making pills, each weighing about 0.12 g.

Each pill contains about 0.1 g. of quinine sulphate.

Sapo Medicatus.

Medicinal Soap.

Warm

Sodium hydroxide solution

(specific gravity: 1.17) ... 120 pts.

on a water-bath; gradually add to it, under stirring, a mixture of

Hog's lard	50 pts.
Olive oil	50 pts.

after warming the mixture for half an hour, add

Alcohol	12 pts.
---------	---------

stir the resulting mixture, until a homogeneous mass is obtained, then gradually add

Water	200 pts.
-------	----------

and heat the mixture, adding, if necessary, a small quantity more of sodium hydroxide solution, until complete saponification takes place. When a portion of the saponified mass clearly dissolves in hot water, add to it a filtered solution of

Sodium chloride	25 pts.
Sodium carbonate	3 pts.

in

Water	80 pts.
-------	---------

heat the whole mass, under stirring, until the soap is completely separated; after cooling, remove the mother liquor; wash repeatedly with a small quantity of water; press strongly; cut into small pieces and dry in a warm place.

A white mass, having no rancid odour; soluble in water and in alcohol.

Sirupus Menthæ.

Syrup of Peppermint.

Moisten

Peppermint leaves, medium

cut ... 2 pts.

with

Alcohol	1 pt.
---------	-------

pour on them

Distilled water	10 pts.
-----------------	---------

extract in the cold, with frequent shakings, for twenty-four hours; press; filter; in the

Filtrate	7 pts.
----------	--------

dissolve

Sugar	13 pts.
-------	---------

A greenish-brown syrup.

Sirupus Rubi Idæi.

Syrup of Raspberry.

Crush fresh raspberries, cover, and set aside with frequent stirrings at a temperature of about 20° C., until a small portion of the filtered juice, on being mixed with half its volume of alcohol, produces no turbidity; press; filter; in the

Filtrate	7 pts.
----------	--------

dissolve

Sugar	13 pts.
-------	---------

A red syrup.

Tinctura Rhei Aquosa.

Aqueous Tincture of Rhubarb.

Take

Rhubarb, coarse cut	10 pts.
---------------------	---------

Potassium carbonate	1 pt.
---------------------	-------

Sodium borate	1 pt.
---------------	-------

pour on them

Boiling distilled water	90 pts.
-------------------------	---------

set aside for fifteen minutes; add

Alcohol	9 pts.
---------	--------

after the lapse of an hour strain the solution by applying a slight pressure; with every 85 parts of the strained liquid mix

Cinnamon water	15 pts.
----------------	---------

A reddish-brown liquid, showing a strongly alkaline reaction, and having the odour and taste of rhubarb; miscible with water without producing any turbidity.

Prepare freshly when required.

Vinum Chinæ.

Cinchona Wine.

Dissolve

White gelatin	1 pt.
---------------	-------

by warming in

Distilled water	10 pts.
-----------------	---------

to the resulting solution add

Sherry	1000 pts.
--------	-----------

Cinchona bark, in coarse	
--------------------------	--

powder	40 pts.
--------	---------

extract in the cold for eight days; press; in the expressed liquid dissolve

Sugar	100 pts.
-------	----------

Tincture of bitter orange	
---------------------------	--

peel	2 pts.
------	--------

set aside in a cool place for fourteen days and filter.

A reddish-brown liquid, having an agreeable bitter taste.

A Chat on Japanese Pharmacy.

By A JAPANESE PHARMACIST.

PHARMACY has been allied with medicine in Japan, as in other countries, from time immemorial. The first medical man of note was brought from China in the era of Tenji-tenno, a famous Japanese reformer. In that day and up till recently the pharmacist was also the physician.

In Japan to-day anyone who takes out the licence issued by the Government may practise as a chemist and druggist. Drugs and medicines are sold freely in groceries, dry-goods stores, and other establishments in Japanese towns and cities. A knowledge of pharmaceutical science or of chemistry is unnecessary so far as Government restriction is concerned, although dispensing of prescriptions and compounding for medical men must be done by pharmacists qualified according to the regulations. The dispensers employed by doctors have, however, usually no scientific training; they depend upon the experience picked up in dispensaries. Modern pharmacy in Japan may be divided into three classes—manufacturing chemists, proprietary-vendors, and dispensers. The last-mentioned are few in number, manufacturing chemists and wholesale druggists are numerous, but vendors of proprietaries are to be found everywhere. The business of the wholesalers, so to speak, is mainly confined to manufacturing chemicals and medicines and selling drugs for home supply, but there are a few

large factories springing up in Tokyo and Osaka equipped with modern machinery, and although at present they are small and few in comparison with European and American factories, they are growing in importance. Some of the Tokyo and Osaka houses import goods from foreign countries direct, but most of them import through foreign agencies in Japan. Considerable adulteration in drugs and chemicals is still practised. Patent-medicine vendors are found in every town and even village. Some of their signboards are rather weird: pictures of monsters, giants, men with dragon faces, boys with abnormal heads being some of the variations employed. The proprietaries sold by these vendors are probably thirty or forty in variety, but the names and titles under which they are sold are so different (although the ingredients are mostly the same) that it gives one the impression that there are hundreds. The ordinary Japanese proprietary medicine possesses little or no efficacy, and the Government forbids the use of dangerous or poisonous ingredients in these medicines. No mixtures are employed, the preparations being pills, tablets, lotions, ointments, or powders. An internal stamp-tax of 10 per cent. *ad valorem* is imposed on patent medicines, but a rebate of the stamp-duty is allowed on medicines for export. The directions for the administration of the medicines are printed in English, Korean, and Chinese, as well as in Japanese. The administration of the pharmacy regulations and the Government inspection of drugs and chemicals are by no means ideal.

Pharmaceutical Advertising.

By "PHARMAKOS."

SO much has been written, in these pages and elsewhere, about advertising, that it is difficult to see how anything new can be said about it. And as regards advertising *per se*, this is perfectly true. Certain golden rules have long since been laid down, and all that is ever said—whether by the business expert who guarantees to increase your trade for a modest fee, or the successful tradesman who, having succeeded himself, is willing to help younger men up the rugged path—is simply a repetition of these rules. But while the rules apply with equal force to pharmaceutical advertising, there are certain exceptions and modifications to be observed in connection with the latter, and it is the object of this article to point these out. In the first place, the very fact of one's place of business being a pharmacy implies a certain professional element—an element not seen in a grocer's or even a drug-store, and one which must never be lost sight of. Anything, therefore, in advertising which will militate against this professional element is carefully to be avoided. There is more in this than appears at first sight. While a grocer or a draper can boom his business to the masthead, it is denied the pharmacist to use such methods without extreme caution, lest they defeat the very object he has in view.

The Key-note.

Every place of business, to be successful, must strike and maintain the key-note of its surroundings. That is another way of expressing the scientific law of conformity to environment. The Bond Street shop cannot succeed by adopting the methods of the Mile End Road, and between these two there are numberless gradations, not all as clearly defined as the extremes mentioned, but all capable of definition to one who studies the subject at all carefully. And the first thing to be done is to ascertain the key-note of the immediate neighbourhood and to strike it in everything pertaining to the premises. The more accurately your key-note has been pitched, the more certain is success, and as this depends upon the surroundings it is obviously a matter for individual study in every case.

Individuality.

Assuming that the key-note has been ascertained, and that the style, fittings, and stock-in-trade have been adjusted in accordance therewith, we have now to deal with the important question of obtaining, keeping, and increasing trade, the methods adopted for which come under the general term of advertising. And here it should be mentioned that by "advertising" is meant, not merely the publication in the newspapers or in handbills of certain announcements, but everything by which a business man makes himself known. The word "advertise" is derived from *ad*, to, and *verto*, I turn, and signifies the turning of the public mind to one's business; any method which accomplishes this end comes under the head of advertising. Now the object which the pharmacist has in view is to turn public attention to himself from his rivals, and the most deadly rival is the drug-store. For this purpose he must employ the one asset which his rivals do not possess, and use it for all it is worth. This asset is his individuality; in other words, the personal element. Everything he does must be so stamped with his own individuality as to let the public see the advantage they will obtain by procuring their supplies from a responsible qualified man instead of through an irresponsible agent of a large unqualified company. For this reason the greatest mistake that can be made is to copy store methods in matters of detail. General business methods may be copied with advantage; prices must in many cases be met, but every detail, such as labels, stationery, windows, handbills, and style of goods, should be as different from those of the stores as possible. The more a pharmacist can show up as a contrast to the drug-stores, the greater is his chance of successful opposition to them.

It is in small matters that this individuality can be most successfully asserted. Labels, stationery, bottles, powder-boxes, can all be made to reflect the proprietor's personality, which is the deadliest enemy of the store. Labels and stationery should have a design running through them all,

original if possible, or carefully selected from printers' samples, and this design should be adhered to throughout. Everything connected with the dispensing department, it need hardly be said, should be the best that money can buy; designs should be plain but distinctive, and should not be changed with every new lot purchased. Prescription envelopes should not contain advertisements of specialties. Ornamental scroll headings and flourishes should be avoided, and the paper used should always be of the best. The same remark applies to bottles, pots, and powder-boxes. For lines other than dispensing, especially if the neighbourhood is not first class and competition is keen, economy may be studied at discretion, but the idea of individuality should be maintained. Having decided to stamp his personality on all that emanates from his establishment the pharmacist may now consider the ways and means of

Attracting Trade.

The methods usually adopted may be divided under five heads, which include all known methods of advertising:

1. Newspaper announcements.
2. Distribution of circulars and samples.
3. Window-dressing.
4. Posters in public places.
5. Eccentric or theatrical methods.

Of these the first three are alone suitable for our case. Posters are seldom, if ever, available to the pharmacist, while eccentric methods, such as dressed-up sandwichmen, are too suggestive of a circus to require consideration.

NEWSPAPER ANNOUNCEMENTS.—This is the most expensive method of making oneself known, and, unless carried out on a liberal scale and with the utmost perseverance, is of little use. It has been said that an advertisement must appear seven times before the reader will act on it. The first time he does not see it; the second time he sees it, but does not read it; the third time he reads it; the fourth time he recognises it as having seen it before, and reads it again; the fifth time he tells his wife about it; the sixth time he notes the address; and the seventh time goes to the shop and purchases. Many of the small advertisements in the daily papers benefit nobody but the newspaper proprietors. Unless, therefore, one has unlimited capital to sink, it is better to avoid newspaper-advertising entirely. In a small town, where there is a local paper, it is sometimes policy, however, to have a space in that paper. If so, a permanent space should be secured, in a good position. This position must be determined by the make-up of the paper, and it must be stipulated for on penalty of non-payment for such insertions as may be relegated to an inferior position. A yearly advertiser can generally make suitable terms for a weekly or bi-weekly insertion, which need not be large if the position is a good one. Assuming that such a space has been secured, the first thing to do is to have an electro made from good type of the name and address. Newspaper type is never of the best, and the most important part of the advertisement (the name and address) should bear that individuality we have already insisted on. The best plan is to have an electro made by the label printer, in the same style as appears on the label. It will cost only a shilling or two, and will give to the announcement just the character that is wanted. This should occupy about one-third of the space, the next being devoted to certain specialties which are advertised in rotation in suitable seasons. As little as possible should be said in this space—simply the name of the article, what it will do, and the price. Such an advertisement might run thus:

SMITH'S

Winter Cream

Keeps the Hands Soft in the Coldest Weather.

Bottles, 6d. and 1s.

JOHN SMITH, Dispensing Chemist,

The Pharmacy, Blanktown.

The name and address are from the electro. The words "Winter Cream" should *not* be in capitals: lower-case

type is more easily read and catches the eye more quickly. "SMITH'S" may be in small capitals, as the word is of less importance than "Winter Cream," and the third and fourth lines may be in ordinary small type, as the reader is not expected to read them until after his eye has been arrested by "Winter Cream." Such an advertisement in a local paper, inserted during severe weather, will not be without its results. A few "Don'ts" may be added:

Don't advertise more than one thing at a time.

Don't use catch-phrases, such as "Cold weather, isn't it?" and so forth; let the name of the speciality be the main attraction, and let that name be such as to suggest a want.

Don't add the time-worn legends "Prescriptions accurately dispensed," or "Patent medicines of all kinds in stock." These convey nothing, and detract from the rest of the advertisement.

Don't advertise in a paper or magazine simply because it is cheap.

Don't say too much in an advertisement. The most effective announcements are those which say little, but that to the point.

CIRCULARS AND SAMPLES.—A circular is perhaps the most effective method of making oneself known. It is less expensive; each shot is more likely to hit the mark; and a neat, well-worded circular is more likely to be retained for reference than a newspaper advertisement. Moreover, a pharmacist can more readily and effectively stamp a circular with his individuality than he can a newspaper advertisement. But the circular must possess that individuality, and to this end it must be prepared with care. Have nothing to do with ready-made handbills, however attractive. The handbills of a pharmacy, more than anything else, should reflect the proprietor's personality. The question as to whether a handbill should describe only one article or several depends very much on circumstances. If more than one item is announced on the same sheet, these should not clash with one another, neither should they form too great a contrast. But whether one item or several, the rule should be adhered to of saying as little as possible and saying that in a telling manner. A good plan is to imagine oneself talking to a customer about the article and writing down just what one would say if recommending it over the counter. Having done this fully—just as one would put it, say, in a letter—the next thing is to condense it into elegant "handbill" English, giving the essential points in a way that will attract the reader's attention and compel him to read. Very few people will take the trouble to read a verbose handbill; an announcement in half-a-dozen pithy sentences, however, cannot fail to be read. As an example of what is meant, let us take Smith's Winter Cream and see how a handbill can be framed regarding it. Mr. Smith sits down and writes out its virtues as he would describe them. Finally, he evolves a circular (size 6 in. by 4 in.) something like what is given opposite.

The writing of such circulars ought not to be done in a hurry; it is best to do several at a sitting, printing one and reserving the others for future use. The type must be carefully selected, so that the principal lines catch the eye with the least trouble to the reader. Such a circular might be sent out once a month, a set of addressed envelopes being always kept in readiness for the purpose. Illustrations in circulars are good if original, but these are expensive. Ready-made blocks are worse than useless, as they defeat the very object one has in view—personality.

The distribution of samples requires considerable discretion. The desire of the general public to get "something for nothing" is very great, and nine-tenths of one's samples go simply to gratify this desire. It is like the seed which fell on stony ground, and which went to feed the birds of the air. Samples are expensive, and should be judiciously placed only where they are likely to do good. In every case a short letter should accompany them, not a printed or even a mimeographed letter, but a neatly written or typed communication addressed directly to the individual concerned. The announcement, "Samples on application," is unwise so far as the public is concerned.

In connection with the distribution of circulars arises the question of booklets and calendars. The great drawback to these is that they must be "ready-made," for it is very expensive to be original in such matters. Even though the publisher guarantees that nobody else in the same town

shall have the same design, still in these days of travel people are certain to see its replica somewhere, and one's reputation as an "individual" is at once lost. Moreover, calendars and almanacs are so numerous nowadays that all but the very best (and therefore most expensive) are usually relegated to the kitchen. On the whole, therefore, it is better to put one's money into something that brings a more immediate and direct return.

SMITH'S

Winter Cream

For Keeping the Hands Soft and White, and Preventing
Chaps and Redness in the Severest Weather.

IS NEITHER STICKY NOR GREASY.

DRIES COMPLETELY ON THE SKIN.

DOES NOT INTERFERE WITH WORK.

MAY BE APPLIED AT ANY TIME OF
THE DAY.

MAKES THE HANDS SOFTER AND
WHITER EVERY TIME.

Delicately Perfumed.

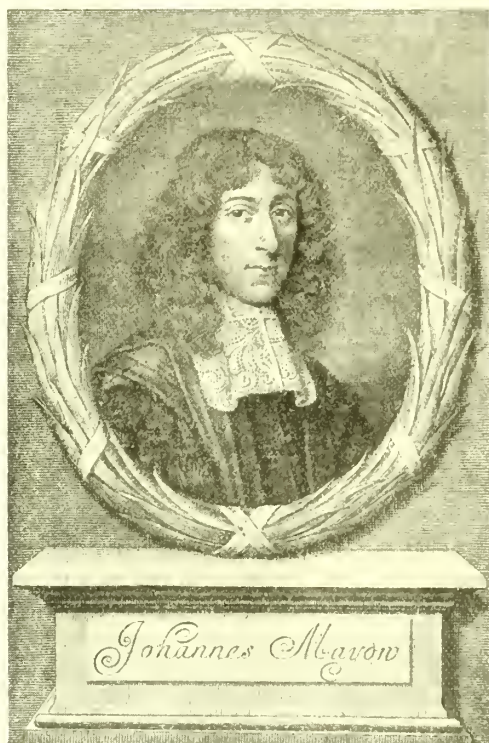
A Pleasure to Use.

A LADY WRITES: "I find your Winter Cream *most useful*: it keeps my hands so soft that I can do the finest needlework with comfort in the coldest weather."

Bottles, 6d. and 1s. each.

Prepared by, (etc.)

WINDOW DISPLAYS.—The shop window is like the human face in that it infallibly indicates the character of its owner. It will perhaps be best to indicate what is to be avoided in window-dressing, and perhaps the most important "don't" in this connection is *don't* copy the drug stores. It has already been shown that a pharmacy should stand out as a contrast to the stores, and therefore any copying of their methods in this respect is fatal. Another thing to be studiously avoided is letting the window space to advertising manufacturers. It stands to reason that if one's window space is of value to the proprietor of a speciality, it is of still more value to the proprietor of the window. A few words of positive advice may supplement the above negative injunctions. Windows should be *kept clean*—not merely cleaned once a fortnight, or even once a week, but *kept clean*. Even if the window has nothing in it but the traditional show-bottles, it must be as scrupulously clean as everything else in a well-conducted pharmacy. That is the first and most important point. Next the window should never be *filled*. A small assortment of seasonable specialties or a small but attractive display of one specialty (in addition to the regulation bottles to show that it *is* a pharmacy, and not a store) is best taste, and this display should be *changed frequently*. As a general rule, theatrical set scenes and moving figures are a mistake; such ideas can only be introduced with great discretion. A glass shelf about the level of the eye should contain the main attraction, and show-cards should be plain and neat (never home-made unless the proprietor or an assistant has a distinct talent that way), and not too many in number. Bills should not be pasted on the window. In short, the owner's individuality as a pharmacist should appear in the window as in everything else, and if the remarks already made be followed as regards striking the key-note of the district, and maintaining one's individuality in this key, everything else may safely be left to follow. "Tis not in mortals to command success," but the majority of workers in this world get their deserts, whatever cynics may say to the contrary, and conscientious work along the right lines is bound to bring its reward in time.



"In the Parish of St. Dunstan's in the West, in Fleet Street, London," in May 1643, Elizabeth, the wife of William Mayow, gave birth to a son, whose name was John. Before the boy reached his fifteenth birthday he was a commoner of Wadham College, Oxford; the next year a scholar, and in 1660 he was elected to a fellowship at All Souls' College. He graduated B.C.L. on May 30, 1665, and D.C.L. on July 5, 1670. He afterwards became LL.D., and M.D., and in his day was one of the most successful medical practitioners in London and Bath. He died "in an apothecary's house, bearing the sign of the Anchor, in York Street, Covent Garden, . . . in the month of September 1679."

We paraphrase from the preface to the Alembic Club's reprint of "*Medico-physical Works* : being a translation of *Tractatus quinque Medico-physici*," by John Mayow—the largest, not the least valued, and certainly one of the most interesting reprints by the little band of Edinburgh chemists whom Professor Crum Brown has stimulated to reverence the past while probing the future. John Mayow was the man who anticipated Priestley and Scheele in their discovery of oxygen; he was a century before his time, in so far as his five tracts remained in libraries disregarded for a hundred years, and when Lavoisier's new chemistry was conquering the world, people found it in Mayow's book. He was again forgotten by most people for nearly another century until the atmospheric discoveries of Ramsay and Rayleigh brought his name and work to the surface again. We are glad to have this full translation of his works by A. C. B. and L. D. (*i.e.*, Drs. Crum Brown and Leonard Dobbin), the book being published by James Thin, Edinburgh, and Simpkin, Marshall & Co., Ltd., London, at 4s. 6d. net. We commend it to those of our readers who delight in the quaint and the curious, and to all who are devoted to the genesis of scientific truth. Mayow's portrait given above is from the frontispiece. The tracts are :

I.—On sal nitrum and nitro-aërial spirit (fifteen chapters, the last being on the thermal waters of Bath).

II.—On respiration (partly medical—*e.g.*, broken windedness of horses, hiccup, and nightmare).

III.—On the respiration of the fœtus in the uterus and in the egg.

IV.—On muscular motion (seven chapters, one of them on the ferments of the stomach, the pancreas, and the spleen).

V.—On rickets (enemata, emetics, cathartics, and alterative specifics were the medical remedies).

Besides the frontispiece and fully 350 pages of print the book contains a series of plates incorporating Mayow's anatomical, chemical, and physical drawings.

A Paris Pharmacy.

"SO you haven't seen M. Heudier's pharmacy?" said my friend from the Plaine Monceau district of Paris. "Well, you know that Spanish proverb, 'Who has not seen Seville has not seen a marvel.' You are to be pitied rather than blamed for not living in our part of Paris."

"But what is there special about it?" I asked.

"Everything. It's unique."

"Up-to-date cut price-list framed in window and forty-page catalogue gratis? 'We invite comparison and defy competition'?" said I.

"No, my good friend; you must look elsewhere than in the Plaine Monceau for that sort of thing. The 'Old Curiosity Shop,' I call it, as it used to be at the corner of the rue de Courcelles—the street where Dickens lived when he was in Paris."

"And where must I go now to have my 'Great Expectations' realised, and see 'Our Mutual Friend,' M. Heudier?" I inquired.

"Corner of the rue Margueritte and the Boulevard de Courcelles. Look out for the sign of the Mortar, you can't miss it."

Located since 1900 in the stately modern premises at that commanding corner site, M. Heudier's pharmacy is, I found, readily recognisable by the handsome Louis XV.



M. HEUDIER'S PHARMACY.

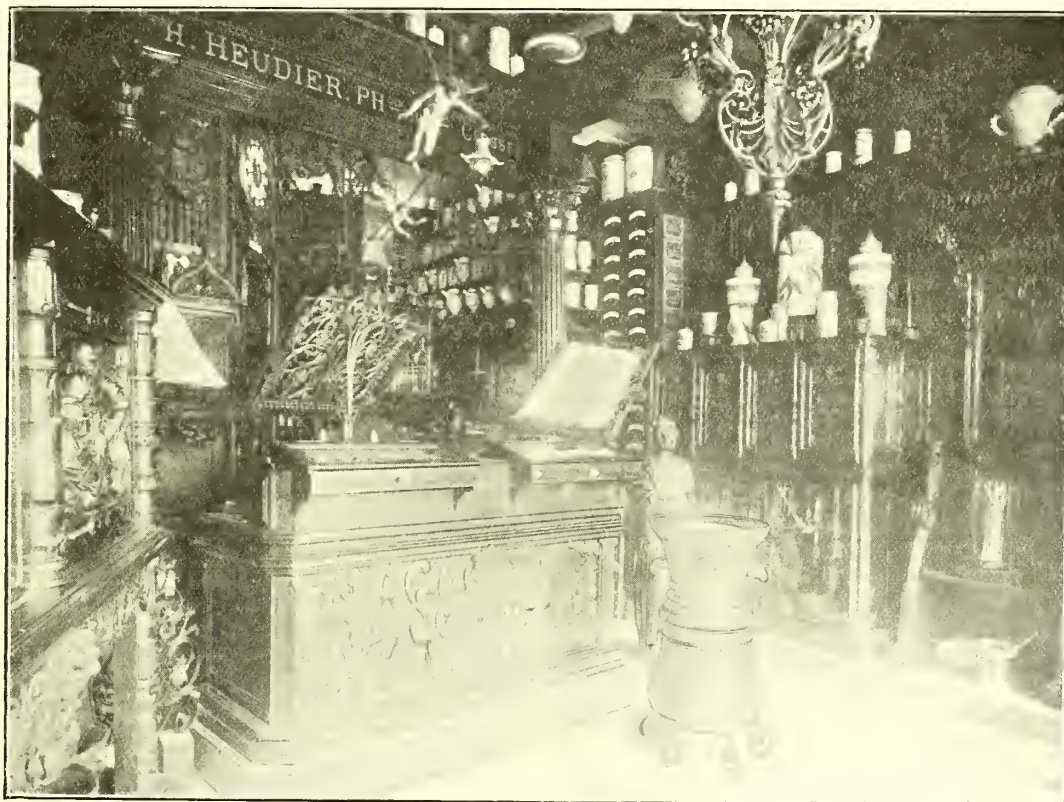
wrought-iron bracket bearing the sign in question. The interior of the pharmacy is a veritable museum. M. Heudier was entering a prescription in a huge volume which lay open on a handsome lectern when I announced myself. As our conversation commenced, he seated himself in a mediæval carved-oak chair, and pointed out various objects of interest placed on an oak sideboard elaborately carved with naïve representations of biblical subjects, such as the Circumcision. Every available nook housed some curio. In a counter-case was a collection of ointment-spoons used in sacred rites, and "jetons" or tokens (one of the Paris Society of Pharmacy is dated 1796; a still more ancient token bearing the image of the Esculapian cock and the title of the old Parisian Guild of Apothecaries). Some quaint old volumes were similarly secured: Charas's "*Nouvelles Experiences avec des Vipères*"; the "*Admirable Secrets of Albert-le-Grand*"; the quaint tome of Joannes Schenki, published at Lyons in 1644; the "*New Latin and French Formule of the Lyons Hôtel-Dieu*," printed at Liège in 1761; and the "*Secret and Proved Remedies prepared at the Louvre by order of the King by the defunct M. l'Abbé Rousseau, ci-devant capucin (friar) and physician to his Majesty.*"

But the most interesting feature was the collection of mortars, which, for importance and variety, would be difficult to equal. Nine are giant specimens, weighing some 2 cwt. apiece. "I am as bulky as a sow" ("Je ressemble à une truie p. l. m.") runs the inscription around the rim of one of these huge utensils, with handles of fish-head shape, dated 1625. "This is the biggest of all," said M. Heudier, "Florentine Renaissance," and he indicated a mortar ornamented with lions' heads and drapery in relief, with caryatid (or human figure) handles. "But as a specimen of the finest epoch of Florentine work, look at the cup-shaped form and horsehead handles of this other mortar. It dates from about 1520, I think. The baskets of flowers in relief and a handsome acanthus-leaf ornament are really artistic, and, as you see by the inscription, 'Gio Batta Bossini ad uso di Farmacia e Drogheria,' it is a real pharmacy mortar."

We drifted into a discussion on styles and dates. "Those little mortars with the many-ribbed sides are what we call

(that of an inverted bell) is characteristic of this epoch. The German mortars are higher and narrower, and often with loop-shaped handles. To return to the unmistakably French mortars, one announces "le Svis a Jehan de Sainte Græ Appotiquere 1572" ("I belong to John de St. Græ, apothecary, 1572"); another, ornamented with long lines of fleur-de-lys in chessboard style, "Josve Saurin Oppore D'Aveyen," is pointed out by M. Heudier as belonging to the Louis XII. epoch. A third was made in 1643 for "Estienne Pol," by Simon Jacobus; a fourth bears the name of "Urbain Haudault, Sergent Royal, 1686"; a fifth was "made for the Charity of St. Médéric" in 1725. A fine specimen with ram's-head handles is seen in the front of the counter; it is inscribed "Franciscus Sage, Pharmacopeus Parisiensis Anno Domini MDCCXXXVIII."; and a large-sized mortar in Louis XV. style, with floral relief, has the caryatid handles already described, and is dated MDCLXX.

"One of the most curious that I have," remarked the



INTERIOR OF M. HEUDIER'S PHARMACY.

In the foreground is a fine mortar with ram's-head handles.

Gothic," my host proceeded, "and precede the handsome Renaissance specimens. One can usually fix an approximate date by the style of the ornament. The Henry II. mortars, for instance, often bear portraits—Diane de Poitiers figures largely, and I could show you Francis I., Leonardo da Vinci, and other celebrities. Yes, I believe M. Le Roy's famous mortar, in the rue Rembrandt close by, is very like the cup-shaped, acanthus-ornamented specimen I showed you, but I never saw it myself." I here remarked that I had been told it was bought for 15,000*f.*, and was made for some Italian prince, who studied alchemy, at the beginning of the sixteenth century; upon which M. Heudier said, "That is quite possible. That is about the date of mine."

Another of his large specimens (12 in. high and 18 in. diameter) bears round its lower portion the floral decoration which characterises the Italian Renaissance, but in the upper portion religious emblems alternate with portraits. The handles are knob-shaped, and the general form

pharmacist, "is this little stone mortar. It dates from Francis I's time, I believe, and is of a curiously shallow shape, with carvings in relief."

"And this smart little brass mortar with knob handles and a royal crown surmounting a rather complicated monogram?"

M. Heudier has several Dutch specimens, and at least one sample from the artistic foundry of the celebrated Van den Ghein—with ram's-head handles, a floral central band, and the inscription "Peter van den Ghein me Fecit MCCCCXXVI." Another has the ever-popular inscription "Laft Godt Van All" ("Now praise we all our God"); it is dated 1596 and handsomely executed.

The collection of pharmacy-jars (if less striking than this unique "mortar museum") would—in any other pharmacy—attract attention. A fine series of Louis XVI. drug-pots is banished to back shelves for want of space. The specimens in the pharmacy itself include samples of most of the famous Italian pottery centres.

The Law as to Continuing Warranties.

By WILLIAM MARSHALL FREEMAN, of the Middle Temple, and of the Midland Circuit, Barrister-at-Law.

THE question of warranties is one of considerable importance to both wholesale and retail traders, and one that has been and still is fraught with no small amount of misunderstanding. The subject has been before the High Court on more than one occasion recently in connection with Sale of Food and Drugs Acts cases; and it would be safe to say that to the non-legal mind these most recent decisions would add to rather than detract from the uncertainty and doubt surrounding the whole subject. I propose in the course of this article to review the leading decisions upon general or continuing warranties with the hope of being able to make their united effect quite clear. Before touching the decisions, however, it will be well to set out the statute law upon the subject which these decisions were meant to interpret. This is contained in Section XXV. of the Sale of Food and Drugs Act, 1875, and in Section XX. of the Act of 1899. The former reads as follows:

If the defendant in any prosecution under this Act prove to the satisfaction of the Justices or Court that he had purchased the article in question as the same in nature, substance, and quality as that demanded of him by the prosecutor, and with a written warranty to that effect, that he had no reason to believe at the time when he sold it that the article was otherwise, and that he sold it in the same state as when he purchased it, he shall be discharged from the prosecution, but shall be liable to pay the costs incurred by the prosecutor, unless he shall have given due notice to him that he will rely on the above defence.

Section XX. of the other Act is as follows:

(1) A warranty or invoice shall not be available as a defence to any proceedings under the Sale of Food and Drugs Acts unless the defendant has, within seven days after service of the summons, sent to the purchaser a copy of such warranty or invoice with a written notice stating that he intends to rely on the warranty or invoice and specifying the name and address of the person from whom he received it, and has also sent a like notice of his intention to such person.

(2) The person by whom such warranty or invoice is alleged to have been given shall be entitled to appear at the hearing and to give evidence, and the Court may, if it thinks fit, adjourn the hearing to enable him to do so.

(3) A warranty or invoice given by a person resident outside the United Kingdom shall not be available as a defence to any proceedings under the Sale of Food and Drugs Acts, unless the defendant proves that he has taken reasonable steps to ascertain, and did in fact believe in, the accuracy of the statement contained in the warranty or invoice.

(4) Where the defendant is a servant of the person who purchased the article under a warranty or invoice he shall, subject to the provisions of this section, be entitled to rely on Section 25 of the Sale of Food and Drugs Act, 1875, and Section 7 of the Margarine Act, 1887, in the same way as his employer or master would have been entitled to do if he had been the defendant, provided that the servant further proves that he had no reason to believe that the article was otherwise than that demanded by the prosecutor.

(5) (This section refers to venue of trial of action against wholesaler giving warranty: the same Court may exercise jurisdiction.)

(6) Every person who, in respect of an article of food or drug sold by him as principal or agent, gives to the purchaser a false warranty in writing shall be liable on summary conviction for the first offence to a fine not exceeding twenty pounds, for the second offence to a fine not exceeding fifty pounds, and for any subsequent offence to a fine not exceeding one hundred pounds, unless he proves to the satisfaction of the Court that when he gave the warranty he had reason to believe that the statements or descriptions contained therein were true.

It will thus be seen that the defence of warranty in a prosecution under the Sale of Food and Drugs Acts is valid only when the proper conditions are complied with. In order that a trader may obtain an acquittal he must satisfy the Court on four points: (1) That he purchased the article as being the same in nature, substance, and quality as that demanded of him by the prosecutor; (2) that he had no reason to suppose at the time he sold the article that it was otherwise; (3) that he sold it in the same state as it was

when he purchased it; and (4) that he purchased it with a written warranty. He must, of course, obey the directions as to giving proper notice of the defence he intends to raise both to the prosecutor and to the wholesaler concerned. If he succeeds on the hearing the case will be dismissed and the prosecution will be left to take proceedings if they think fit against the wholesaler.

The question to be considered now is what is meant by a warranty; what document or what form of words will suffice to constitute a warranty within the meaning of the Act? In the first place it is not sufficient merely for a label to be affixed to an article. A label is not in itself a warranty; it is nothing more than a means of identification—a method, that is to say, of connecting the article with the warranty. And it should be noted that, according to the most recent decisions upon the subject, it is absolutely necessary that a specific warranty in writing must be obtained in respect of each specific article or, at least, that there must be evidence in writing to connect a particular consignment with a warranty intended to cover a contract involving subsequent deliveries of goods. The reported decisions of the High Court on warranties for the most part refer to milk, but that of course is because there are so many more prosecutions in respect of milk than in respect of anything else; and, besides that, the milk vendor generally contracts for his supplies, and when he falls back upon the wholesaler it is as a rule in respect of some general warranty given to cover a contract extending over a long period.

The series of cases we are about to discuss begins with that of *Harris v. May*, which was decided in 1883, and was followed until 1901, when *Elliott v. Pilcher* was decided differently. *Elliott v. Pilcher* has since been reconsidered, and is no longer regarded as sound law. Recent cases have practically brought us back to the decision in *Harris v. May*, and the result of this series of cases, extending over nearly twenty-five years, has been merely to establish that decision as the leading one upon warranties, but at the same time to elucidate the principles which it embodied. *Harris v. May* was a case in which the appellant had purchased milk under a written contract whereby the wholesaler had agreed to sell him pure milk for a period of six months in daily deliveries. A few weeks after this contract had been entered into, a sample was taken, and was found to be deficient; thereupon a prosecution and conviction followed. On appeal it was held by Lord Chief Justice Coleridge and Mr. Justice Mathew that this written contract did not constitute a warranty within the meaning of the Act so far as this particular consignment of milk was concerned, and Lord Coleridge observed in the course of his judgment that a person who wished to protect himself under the Warranty Clause of the Act of 1875 must, in order to make himself perfectly safe touching the sale of a specific article, show that he had a proper and specific warranty in writing in respect of that article.

Then there was the case of *Farmers' Dairy Co. v. Stevenson* in 1890. This was a prosecution for selling deficient milk, and here there was a written contract which said that the vendor thereby warranted each and every supply of milk to be delivered under the contract to be pure, genuine, new, unadulterated, and with all its cream on. A label giving the contents of the churn and the names of the parties to the contract and the date of the consignment was put on each churn, and this label also bore the words: "warranted genuine new milk with all its cream on." In this case it was held by Mr. Justice Stephen that there was a sufficient warranty, and Mr. Justice Cave, in commenting upon the decision in a subsequent case, remarked that the label by itself would not have constituted a warranty, but could only be looked at for the purpose of showing that the delivery was a delivery under the written contract. "It was not," his Lordship said, "the label which contained the warranty; all it did was to identify the milk."

The next important case in this series was *Laidlaw v. Wilson* (1894). Here lard was the article in question, and the point arose out of a contract made on December 17,

1892, in these terms: "We have this day sold to you 3 tons Kilvert's Pure Lard for delivery to the end of January 1893." A portion of this lard was delivered the following week, and an invoice was delivered at the same time describing the consignment as "two barrels Kilvert's Pure Lard." The High Court decided that there was a sufficient written warranty here to satisfy the Act, and relied upon the invoice as sufficient to connect this particular parcel as being a portion of what was sold under the contract.

(To be continued.)

Commercial and Produce Notes.

Siamese Pepper.

Pepper in Siam is grown extensively in the districts of Trang and Setul, the former situated in Monthon Puket and the latter in Saiburi. The returns for 1906 show an export of 23,714 piculs (1,423 tons), valued at \$440,483, or 51,3907. The cultivation in Setul is comparatively recent, and has proved a great success, as the soil is suitable, and very favourable terms are given to the cultivators, who are entirely Chinese.

Scopolia Japonica.

Thirty bales of rhizomes shipped from Tokio under the above name were offered at the last drug-auction, and bought in at 25s. per cwt. The drug is unfamiliar in this market, but was brought to notice here about twenty years ago as Japanese belladonna-root and described at the time as a mydriatic of great value. *Scopolia japonica* belongs to the *Solanaceæ*, and is found both in China and Japan. According to Planchon and Collin in "Les Drogues simples d'origine Végétale," the rhizome is employed as a succedaneum of belladonna in ophthalmic affections. It is of cylindrical shape, compressed, and rarely branched, characterised by the presence on the upper surface of rounded scars, fairly deep, indicating the position occupied by the leafy stems. The bark is of a brownish tint, and closely attached to the wood, which is of a pale-yellow colour, and has a slightly narcotic odour and a feebly bitter taste. The chemical study of this rhizome was made by Langgaard (1878), who extracted two alkaloids—viz., *rotoine* and *scopoléine*. Eykmann (1884) found in it an alkaloid having the property of dilating the pupil of the eye, to which he applied the name *scopoléine*, and another principle *scopoléine* which communicates a peculiar fluorescence to watery infusions of the rhizome. From a series of experiments made by Schmidt in 1887, he concludes that no new alkaloids are present in this drug, but only atropine, hyoscyamine, and hyoscyne in varying proportion governed by the conditions of vegetation and the period of collection.

Vanilla.

The imports of vanilla into the United States for the fiscal years ended June 30, 1902 to 1906, have been as follows: 1902, 561,739 lb.; 1903, 521,669 lb.; 1904, 550,328 lb.; 1905, 608,116 lb.; and 1906, 852,505 lb. The official figures for the fiscal year ended June 30, 1907, have not yet been published by the Bureau of Statistics, but they will appear shortly. Meanwhile it is anticipated that the imports for that period will show an increase of about 10 per cent. on the previous year. In 1906 the imports into the United States were drawn from the following countries: Mexico, 377,164 lb.; French Oceania (Bourbon, Madagascar, etc.), 243,928 lb.; France, 191,295 lb.; United Kingdom, 21,243 lb.; and the French West Indies, 12,205 lb. The balance, which is quite small, came from Belgium, Germany, Netherlands, China, and South America, and may be considered more or less accidental in character. Owing to the new Pure Food and Drug Law, vanilla has been in more favour than vanillin, and although the business outlook is not generally promising it is considered that vanilla will not be seriously affected by the industrial depression, but that the demand will remain about steady. In our issue of October 26, 1907 (p. 666), we pointed out that the Bourbon crop of vanilla had suffered severely from drought, and we now learn from Messrs. Malaurent, of Bordeaux (writing to their agent in London), that, judging from the quantities being shipped to Europe from the various producing districts and the amount to come forward, the deficit will amount to about one-third of the world's crop. The 1907-8 crops suffered from drought during July and August, in consequence of which the flowers have not pollinated at all well, and the yield of the vine has been poor.

MR. S. NAKAMURA, of Nagasaki, hitherto trading agent in Government camphor, has promoted the establishment of the Japan Camphor Co., with half a million yen capital, to exploit camphor-plantations in Kyushu. The produce is intended to be sold to the Ministry of Finance.

Trade Report.

NOTICE TO BUYERS.—The prices given in this section are those obtained by importers or manufacturers for bulk quantities or original packages. To these prices various charges have to be added, whereby values are in many instances greatly augmented before wholesale dealers stock the goods. Qualities of drugs and oils vary greatly, and higher prices are commanded by selected qualities even in bulk quantities. It would be unreasonable for retail buyers to expect to get small quantities at anything like the prices here quoted.

42 Cannon Street, London, E.C., January 22.

THIS report deals with the drug and chemical markets up to Wednesday evening, and any further changes that may occur will be found in our Coloured Supplement. The week under review so far has been quiet, the bulk of the price-variations being slight. In chemicals, citric acid has declined, and, in the absence of demand and a more abundant supply of raw material, the outlook is for lower prices this season. Tartaric acid is steady. Nitrate of silver is lower. Potassium and sodium cyanides are lower in one direction. Phenacetin is firm. Oxalic acid and ammonia sulphate are tending firmer. Camphor is weaker, both for Chinese crude and Japanese refined for shipment. Among drugs, aconite is dearer. Annatto is scarcer. Belladonna, cassia fistula, and nux vomica are very scarce. Jalap is higher. Musk and cassia oil are easier. Bergamot oil is higher, but lemon is easier, although closing rather firmer. Caraway-seed and Cochin ginger are dearer, and coriander is firmer. The changes are indicated as follows:

Higher	Firmer	Easier	Lower
Aconite root	Ammonia sulphate	Lime juice	Citric acid
Bergamot oil	Aniseed oil	Musk	Lemon juice
Caraway seed	(star)	Pimento	(conc.)
Ginger, Cochin	Coriander	Senega	Potash cyanide
Jalap	seed		Silver nitrate
	Oxalic acid		Sodium
	Wood oil		cyanide
			Vanilla

Heavy Chemicals.

There is a fair improvement to be reported in the volume of business in the heavy-chemical market since last writing, and there have also been heavier inquiries put forward for deferred delivery, both for home and export account. There is a very steady tendency in prices, and fluctuations are few.

ALKALI-PRODUCE.—Bleaching-powder has been moving well on forward account, and similar remark applies to caustic soda. Salts stand very firm, and chlorates are in somewhat increased request.

SULPHATE OF AMMONIA.—This market remains much the same as recently reported, and there is not much actual business being done, buyers' and sellers' ideas for forward still being at variance. General tone is firm, and present nearest figures as follows: Beckton 12l. 5s., Beckton terms 11l. 16s. 3d. to 11l. 17s. 6d., London 11l. 15s. to 11l. 17s. 6d., Leith 12l. 2s. 6d., and Hull 11l. 16s. 3d. to 11l. 17s. 6d.

ALUMINA-PRODUCTS.—General demand in this branch is, perhaps, scarcely a full average, some of the consuming trades being rather on the slack side just at present. Values, however, are well maintained, and are likely to continue so in view of the higher manufacturing costs. Crystal alum, lump, 4l. 17s. 6d. to 5l. 5s.; lump in tiers, 5l. 2s. 6d. to 5l. 10s.; and ground in bags, 5l. 7s. 6d. to 5l. 15s. per ton. Sulphate of alumina, purest qualities, and practically free of iron, ordinary strength, 4l. 12s. 6d. to 5l. 2s. 6d. per ton in usual casks, with customary allowances for bags and loose slabs and ordinary extras for similar quality in higher concentrations. Aluminous cake 50s. to 55s. per ton, and aluminous ferric 50s. to 60s. per ton, in accordance with quality, quantity, and condition. Hydrate of alumina, high-strength Al_2O_3 , and purest quality, 12l. 10s. to 13l. 10s. per ton in large casks. Special pulp hydrate of alumina, 15s. to 17s. 6d. per cwt. Special pulp quality, dried and in lumps, 37s. 6d. to 40s. per cwt., and ground 38s. to 40s. 6d. per cwt. Aluminate of soda, purest quality and high-strength Al_2O_3 , 35s. to 37s. 6d. per

cwt.; second quality, 12s. to 13s. per cwt. Carbonate of alumina, 35s. to 37s. 6d. per cwt.

Japanese Drug and Chemical Markets.

Business during December was quiet both in exports and imports. In export articles aniseed is steady at 8.00 yen per picul, the stock being light. Iodine-preparations are higher; the crop of raw material is said to be 50 per cent. less than that of last year, on account of the continued rainfall. Potassium iodide is very firm at 3.60 to 3.65 yen per lb., at which figure some several thousand pounds changed hands. Holders are not anxious to sell. Menthol is quoted at 4.50 yen per catty, and the market seems to have touched bottom, but there are no important transactions. Peppermint oil is firmer at 2.80 yen per catty, with a higher tendency. In import articles carbolic-acid crystals are steady at 32 sen per lb., owing to an increased demand. Bismuth subnit. is higher at 5.00 yen, at which figure the bulk of the available stock is being purchased by a few firms. The present price, however, is still about 15 per cent. lower than the cost to import. Cocaine muriate is still low at 5.40 yen per oz. Balsam copaiba is firm at 1.70 yen per lb., owing to short supply. Codcine is lower, phosphate being quoted at 5.80 yen per oz. Glycerin is steady at 30 sen per lb. for P.J. III. quality. Morphine is lower at 70 yen per lb. Quinine is lifeless at 44 sen for muriate and 34 sen for sulphate. Santonin is lower at 19 yen per lb. Saffron is higher at 29.00 yen per catty. Thymol is quoted 4.00 yen per lb., and senega-root is offered at 1.45 yen per lb. in bales.

London Markets.

ACID, CITRIC.—Both English and foreign are flat and lower at from 1s. 6½d. to 1s. 7d. as to maker.

The following raw material statistics may assist in determining the future course of this product. The production of juice from December 1, 1906, to November 30, 1907, amounted to 19,200 pipes, against 15,038 during the same period of the previous year; to this must be added the residue from December 1, 1906, of 233 pipes, which increased to 2,668 pipes in 1907. The coming crop is estimated to be about the same as last year, in which case there will be some 22,000 pipes of crude juice available, a larger quantity than has ever been the case hitherto.

ACID, OXALIC, is in upward tendency at from 3½d. to 3¾d.

ACONITE.—Napellus is dearer on spot, 42s. 6d. being asked.

AGAR-AGAR.—From Hamburg 1s. 7½d. to 1s. 9d. c.i.f. is quoted for prime white for at least 5-bale lots.

ALOES.—Livery Curaçao in boxes is wanting on the Hamburg market, but black capey is offered at 40s. 6d. c.i.f. for at least 20-case lots.

ANNATTO-SEED is somewhat scarce, 3½d. having been paid for very medium quality.

ARSENIC.—Best white English powder in drums is quoted 27s. 6d. and 27s. in casks.

BALSAM PERU.—Genuine B.P. quality is quoted 8s. 6d. per lb. c.i.f. terms.

BALSAM TOLU.—For shipment from the Continent large tins are quoted 11½d. to 11¾d. as to quantity, and for small tins in lots of five cases 1s. 0¾d. c.i.f. is quoted.

BELLADONNA-ROOT is still scarce; 75s. has been paid for small parcel of good sightly root.

CAMPOR (CRUDE).—Spot Chinese is slow at about 185s. and to arrive January-February shipment is quoted 175s. c.i.f. It is reported that a large business has been done in China at advancing rates owing to the covering of forward sales by "bears."

CAMPOR (REFINED).—For shipment to the United States a good business has recently been done at from 2s. 5d. to 2s. 6d. per lb. c.i.f., but subsequently the price for April-May shipment declined to 2s. 4d., c.i.f., and later to 2s. 3½d., c.i.f., for 1-oz. tablets, while 2s. 2½d., c.i.f., is quoted for 2½-lb. slabs.

CANARY-SEED is unchanged in price; small sales of Turkish have taken place at 35s., Mazagan at 36s., and Saffi at 34s. per quarter.

CANTHARIDES.—Natural Russian flies are quoted at 2s. 8d. per lb. in casks and 2s. 8½d. in cases or barrels.

CARAWAY-SEED is dearer at 40s. to 41s. per cwt. for ordinary to good Dutch on the spot.

CASCARA SAGRADA is moving in an upward direction, some old bark changing hands at 42s. 6d.; c.i.f. offers are few, 41s. 6d. being the idea of a large New York house.

CASHEW-NUTS.—Sales of fair rather husky ex auction have been made at 36s. per cwt., and for good 40s. to 42s. has been paid.

CASSIA FISTULA is scarce on spot. No West Indian is offering. East Indian can be had at from 17s. to 20s.

CHAMOMILES are quiet, as is usual at this time of the year, but prices remain firm, and, with small stocks available both at home and abroad, will undoubtedly harden; 65s. to 85s. is quoted, according to quality.

CHIRETTA is quiet, with small sales at 3½d. per lb.

CINCHONA.—The exports from Java during the first half of January amounted to 617,000 Amst. lb., against 643,000 Amst. lb. in 1907 and 374,000 Amst. lb. in 1906.

CLOVES.—The spot price for Zanzibar in small quantities is 5½d. for new and 6d. for old.

CORIANDER-SEED is firmer, and the tendency is towards dearer prices, but there are still sellers on the spot at 9s. per cwt. First deliveries of the English new crop (which are said to be small) are to hand, and the seed is very small and not so bright as usual. Some sold last week at 16s. 6d., and one holder asks 18s. 6d. to 20s. for his stock.

CUMIN-SEED.—The price is steady at 40s. to 45s. per cwt. for common to good Morocco, but business is slow for this article.

CYANIDES.—One maker now offers potassium cyanide at 7d., and sodium (100 per cent.) at 7d. also, but Beckton make still appears to be 8½d.

GAMBOGE.—Subsequent to the auctions further small sales were made at 15l. 15s. per cwt. for bright Siam pipe, part blocky and mixed.

GENTIAN is scarce on the spot, 25s. having been paid. It is offered for shipment next month at 21s. 6d. to 22s. c.i.f. London.

GINGER.—A large business has been done privately in Cochín ginger this week at advancing rates. At auction washed rough Cochín was bought in at 38s. to 40s., and Jamaica at 75s. to 80s. for dull to fair washed, and bold at 90s.

GUINEA GRAINS are quiet at from 41s. 6d. to 43s. 6d. per cwt. c.i.f. as to quantity.

GUM ARABIC.—Soudan gums are firmer in the producing-markets, but little business has been done. The price of fair to good fair half-hard sorts on the spot is about 35s. to 37s. 6d. Gum Senegal is steady, Bas de Flenve offering at 29s. f.o.b. Bordeaux.

HONEY.—Stocks of Jamaica are getting into a small compass, and the demand is fairly brisk. There is no really good white to be had; prices of other qualities range from 24s. to 28s. per cwt.

ICELAND MOSS is quoted 24s. per cwt. c.i.f.

JALAP has experienced a rise, root testing 6 to 7 per cent. having been sold at 7½d. to 8¼d. The new crop is understood to be overdue, and advices may come to hand at any moment of shipments. Hamburg reports a brisk business recently, and stocks there have greatly been reduced. Prices are therefore much higher, as so far no new season's shipments have arrived. In limited quantities from 8¼d. to 8½d. c.i.f. is quoted.

LEMON-JUICE.—English, being ruled by the price of lemons, has been very scarce, as much as 1s. 6d. per gal. being paid, but it is a little easier now, and, with the prospect of lemons being cheaper, is offering more freely.

LIME-JUICE.—Some heavy orders having been placed on the London market, as high as 1s. 3d. per gal. has been paid for spot for really good raw juice. These orders having been filled, and several fair-sized parcels being advised as on the way, the market should ease again.

LINSEED is steady. Good clean seed has been sold at 47s. 6d. to 50s. per quarter.

LYCOPodium.—Thrice-sifted Russian is offered at 1s. 9½d. per lb. c.i.f. terms.

MANNA.—New crop is offered at 3s. 6d. per lb. for large flake, 2s. 1d. for small, and 1s. 8½d. c.i.f. for "sorts."

MENTHOL.—Kobayashi on the spot is quoted 7s. 1½d., and to arrive there are sellers at 6s. 9d., c.i.f.

MORPHINE.—Consumers appear to be only covering their

most pressing requirements. Small lots are being offered from secondhands at somewhat below the convention rates.

MUSK is slightly easier, sales of good blue-skin pile I. Tonquin pod having been made at 80s. per oz. Old-fashioned pod sells slowly at from 55s. to 60s. as to quality. Russian Cabardine is worth 22s. to 23s. per oz., at about which figures small sales have been made. China is not offered.

NUX VOMICA continues very scarce on the spot, in fact none is offered; 14s. has again been paid for a small lot of Cochinchina from second-hands.

OIL, ANISEED, is again better, c.i.f. price being 4s. 4d., and 4s. 9d. has been paid for several lots on the spot for ordinary, and 4s. 10d. is asked for "Red Ship" brand.

OIL, BERGAMOT, has advanced, finest quality being worth from 14s. 3d. to 14s. 6d., c.i.f.

OIL, CASSIA.—The fact that arrivals have recently taken place has led holders to slightly reduce their quotations, 80 to 85 per cent. c.a. being quoted 6s. 3d.; 75 to 80 per cent. 6s.; and 70 to 75 per cent., 5s. 9d. spot, and to arrive 4s. 3½d., 4s. 6d., and 4s. 9d. c.i.f. respectively is quoted.

OIL, CASTOR.—The prospects of the East Indian crop of seed is again reported to be poor, and we do not think castor oil will decline. Finest medicinal quality is offered on the spot at 38s. 6d. per cwt. cases and 36s. 6d. barrels; forward contracts are slightly easier.

OIL, CITRONELLA.—Ceylon is quoted for shipment at 10½d. c.i.f., and on the spot drums are offered at 1s. and tins at 1s. 1d.

OIL, COD-LIVER.—A Bergen advice dated January 13 states that the demand has been somewhat better, and that the Lofoten fishing has not begun; from 71s. to 73s. f.o.r. Hull is quoted for finest non-freezing quality. Private advices state that the news from the fishing places in the West Finnmarken district continues very good as regards the quality of the liver, which it appears is even better than in 1907. Bad weather has, however, so far prevailed, and the catch to date is insignificant. The tendency of the market is firm. In London 70s. to 74s. per barrel, c.i.f., is quoted as to holder.

OIL, GURJUN.—Filtered quality is offered at from 6½d. to 7½d. per lb. c.i.f. terms as to quantity.

OIL, LEMON, after having declined during the past few days, is firmer at the close, being offered for February-May shipment at from 5s. to 5s. 6d. c.i.f. Spot price is 6s. 3d. for genuine.

OIL, OLIVE.—The new season's eating oil is now on the market, but only in small quantities, and therefore commands fairly high prices. It is quoted from 3s. 6d. to 6s., according to quality and quantity.

OIL, PEPPERMINT, is quiet with H.G.H. at 10s. 11d. to 11s. Wayne County 6s. 9d. to 7s., and Japanese and to arrive 4s. 6d. c.i.f., and 4s. 6d. spot.

OIL, WOOD, is firmer for arrival, sellers asking 28s. 3d. to 28s. 6d. per cwt. c.i.f.

OLIBANUM.—The spot stock mostly consists of ordinary qualities, for which there is only a small sale. Good sorts of the new crop would sell readily. Good pale drop is worth from 48s. to 50s. per cwt.

OPIMUM.—Our Smyrna correspondent writes as follows:

SMYRNA, JANUARY 11.—The last report from the Interior announces that the high plateaux are covered with snow, and the general opinion is that these conditions are favourable for the coming crop. At present no estimate is possible. The arrivals amount to 1,333 cases, against 3,066 cases. The holders who have speculated heavily are considering their policy, and the banks, which have about a thousand cases in pawn, are beginning to grow uneasy. The position is so unusual that it would not be strange if some of the needy holders were to grant considerable concessions in order to get rid of their small stock. In this way they would avoid the interest which, in consequence of the financial stringency, is so high that it would not suit them to wait much longer. Neither England nor America is disposed to pay such high prices, and, with the exception of the 160 cases sold to the Dutch Government, no business has been done since August, with quotations at 211 piastres or 63f. or 51m. Buyers need not be surprised if some local firm offers small quantities on low terms. The foregoing clearly explains the situation, and offers are recommended from buyers.

PHENACETIN.—Our remarks a fortnight ago in regard to phenacetin still hold good, and in the meantime we understand that one of the Swiss makers has instructed his London agent not to accept further business at the moment.

PIMENTO is easier, fair to good natural offering at 2½d. to 2½½d. At auction small sales of ordinary mixed with blacks and stalky sold at 2½d.

QUILLAIA.—Sales are steady, Liverpool reporting business at 27s. to 27s. 6d., and London 29s. Crushed is being sold at 33s. to 35s., according to quantity.

QUININE is in rather more inquiry for B. & S. or H.B. Old is quoted 8d. per oz., and February delivery 8½d. New import is 8½d. spot and February 8½d. Java on the spot can be had at 7½d.

During the eleven months ended November 1907 the exports of "quinine, quinine salts, and combinations" from Germany amounted to 174,000 kilos.

RHATANY.—Genuine Peruvian is quoted 6d. per lb.

SAFFRON is firm and tending upwards, best Valencia offering at 33s. 9d. net.

SARSAPARILLA.—Mexican is quoted 4½d. to 4½d. per lb. c.i.f.

SENEGA is steady at about 2s. 2d. net on spot, and a shade less on c.i.f. terms.

SHELLAC.—A small spot business has been done at from 117s. 6d. to 122s. 6d. for ordinary to good free TN, and matted to blocky 110s. to 112s. 6d. Good and fine orange marks are in fair supply at from 165s. to 170s., matted and blocky 145s. to 150s. A C. Garnet is worth 135s. to 140s. for good free, and G A L 125s. spot.

SILVER NITRATE is lower at 1s. 4½d. per oz. net for not less than 500-oz. lots.

STORAX.—Prices have been reduced, genuine, as imported, offering at 67s. 6d. per cwt. in barrels and 72s. 6d. c.i.f. in cases, with usual allowance for water.

TAMARINDS.—East Indian are selling at 12s. 6d. to 13s., according to quantity, first quality Barbados at 21s., Jamaica at 20s., and Antigua at 18s. to 19s., all duty paid.

TARAXACUM.—According to a Hamburg advice prices have substantially advanced in consequence of U.S.A. inquiry. Whole root is nominally quoted 62s. 6d., and cut 65s. per cwt. c.i.f. terms. On the spot English is scarce at 75s., foreign is 52s. 6d. to 57s. 6d., and foreign cut 62s.

VANILLA.—At auction on Wednesday 2,780 tins were offered, prices at the opening being from 1s. to 2s. per lb. lower for good qualities, and foxy and split 2s. to 3s. easier.

WORMSEED.—Good green Levant of the new crop has been sold at from 18s. 6d. to 20s. per cwt. c.i.f. terms.

Cedron Nuts.

At the last drug-auction a sample bag of 11½ lb. of the above was offered. The plant yielding them belongs to *Simarubca*, and is a small tree native of Colombia. It is crowned with a dense head of branches giving it the appearance of a palm. The fruit is a large drupe not unlike an unripe peach, of an oval form, and usually containing a single seed. According to Planchon and Collin in "Les Drogues simples d'origine Vegetale," the marvellous properties attributed to these seeds for the treatment of intermittent fevers have not been justified from observations made at Montpellier, and the action of the drug is slower and less certain than that of sulphate of quinine. The Indians consider the cedron-nut as one of the most valuable and certain remedies for snake-bite, but experiments made in France for the purpose of verifying the presence of this property have only given negative results. Several other species of this genus are used in South America as tonics and febrifuges.

The German Bromine Convention and "Outsiders."

It is stated that the German Bromine Convention, which of late has experienced a decrease in its volume of business, has now made arrangements to amalgamate with the Mansfeld works. This agreement has also resulted in a better understanding between the German Bromide Convention and the Von Heyden chemical factory of Radebeul. It is further reported that the adherents of both conventions are firmly resolved to offer sharp competition to all "outsiders," and also to America. German producers are especially affected by American competition, as American bromine can be imported into Germany free of duty, while the German product is burdened in America with a heavy import-duty. Great dissatisfaction is felt on this point, and it is thought that the

German Government should protect the bromine producers by denying free entry to the American production.

Bark and Quinine.

Messrs. Widenmann, Broicher & Co., in their annual report, state that the past year was remarkable for an unprecedented production of bark, an enormous consumption of quinine, for very low prices of both products, and an almost entire absence of speculative business in the alkaloid. The decline in the price of bark by the end of the year amounted to about 45 per cent., as compared with values in January 1907, and the fact that makers were able to maintain the quotation of 8½d. from June onwards is proof of the excellent consumptive demand, inasmuch as competition among the various concerns was as keen as ever. In view of the above circumstances, there was nothing to stimulate speculative business. . . . The Bandong Quinine-factory in ten public sales disposed of about 25,600 kilos, quinine sulphate, and in October last they were reported to have sold the Italian Government 20,000 kilos, at a secret price. The total quantity, taking the average analyses at 6 per cent., has absorbed 1½ million half-kilos, of bark, and is considerably larger than the total sales of the Java quinine-factory in any previous year. The prices accepted by the factory have in every instance been much below the unit value paid at Amsterdam at corresponding periods, and it is not clear why the planters supplying the raw material should not prefer to cancel their agreement with the Java factory. In the open market Java quinine continues to be offered at a discount. This is also the case with the Amsterdam brand, of which, apart from private sales, about 6,250 kilos. were sold in ten public auctions at prices much below current values.

Persian Opium.

The British Consul at Bushire, in his annual report for 1906-7, states that the exports of opium from that port during 1906 advanced 33,621*l.* in value on 1905, but still fell below the average. The British market proved much more satisfactory than the Chinese, and exports to London were 25,000*l.* in excess of those in 1905. As usual, much speculation ensued among Persian buyers, who, having advanced money to growers, were compelled to take up their purchases, and incurred substantial losses when prices fell in Hong-Kong. As in the case of so-called insoluble gum arabic in Bombay, the sale early in the year of some 200 cases which reached Hong-Kong at 4,000 to 5,000 krans with favourable dollar exchange in Bombay led to the sending forward of large consignments from Bushire. As a sequel, for three months no sales were advised from Hong-Kong, and something like from 700 to 800 chests are said to be still on the Hong-Kong market. Prices in Bushire ranged from 3,500 to 4,000 krans (67*l.* to 77*l.*) per chest. In accordance with a resolution of the Bombay Government opium chests transhipped *via* Bombay are no longer required to weigh 140½ lb., but 140 lb., the ½ lb. for leaf and dust allowance having been abolished. The transhipment-free leviable there is, for consignments of not more than 150 chests, Rs. 5 per chest of 140 lb. and Rs. 2 8*s.* per chest of 70 lb. The opium trade forms so large and so profitable a part of the produce exported *via* Bushire that the imposition of an embargo by China on the imports of foreign opium will undoubtedly hit many cultivators and merchants very hard; at present native traders are incredulous as regards the proposals for the suppression of opium-smoking in China.

The Cultivation of Manna.

In advocating the cultivation in the provinces of Southern Italy of the tree which produces manna, the "Monde Pharmaceutique" gives some interesting details of the manna industry. The tree, which is a variety of the ash, grows well in warm regions, and attains a height of from 8 to 10 metres. At the end of ten years manna can be extracted from it, and this process can be continued for ten or fifteen years in succession; after this it is pruned and left for six or seven years, when operations are renewed and continued for another ten or fifteen years, and so on until the trees are from eighty to 100 years old. The trees are tapped between June 15 and September 15. Horizontal incisions are made in the trunk from the base to the branches; the manna, oozing through these cuts, solidifies on contact with the air, and forms into clots or grooves, which adhere to the trunk. The first supply, which can easily be removed from the tree, is considered the purest; the second, obtained by scraping the trunk, is of inferior quality, owing to the foreign bodies obtained by contact with the bark. In order to increase the quantity of manna in "tears" the incisions are made in a slanting direction, and a piece of straw is placed below them down which the product flows and solidifies. "Tear" manna is sold at about 4*l.* the kilogram, inferior quality at 2*l.*, and the *débris* at 1*l.* It is estimated that a hectare of ground planted with about 4,500 trees will produce 90 kilos., yielding a net revenue of 80*l.*, and this is not unsatisfactory when the barren nature of the ground

is taken into consideration. Italy exports the manna, and very often receives it back again under the form of "mannite." To obtain this product the manna was formerly dissolved in boiling alcohol, and when this cooled the mannite was obtainable; it was then refined and blanched, when it was ready for the market. This method, however, which is fairly expensive because of the great loss of alcohol, can now be superseded by the Plevani process, by which the manna is dissolved in boiling water, and the solution, after being filtered, is left to settle. When it cools it forms a solid mass, from which the water can be squeezed out. This mass, which is composed almost entirely of mannite, crystallises when dissolved in about an equal quantity of boiling water and left in a cool place of not more than 10° to 12°.

Cinchona in German East Africa.

On a previous occasion attention has been drawn to experiments on the cultivation of cinchona in German East Africa. It is of interest to note that some of the bark has recently been collected in Amani and submitted to analysis in Germany. Two trials were made, the first with bark stripped from branches lopped from the trees, and the other with the bark of stems from trees which had been filled in order to thin out the plantation. In the former case the bark was found to contain 4.6 per cent. and in the latter case 4.84 per cent. of quinine and 1.93 per cent. of other cinchona alkaloids, in which the absence of cinchonidine was shown. In the stem bark, therefore, the total alkaloid present was 6.77 per cent., a result which is considered very favourable. The trees which furnished the bark in these tests were hybrids of *Lcdgeriana* and *Succirubra*, grown at a height of nearly 3,000 ft. and raised from Java seed sown nearly four years previously.

Japanese Rape Oil.

Rape oil in Japan (says the September issue of the "Oriental Druggist") has hitherto been chiefly exported to Hong-Kong, but in consequence of an advance in the price in London, the supply there is running short and orders were being continually received in Japan from London. The Japanese rape-crop this year showed an increase of 20 per cent. in the mainland, but the farmers are not eager to sell. But the crop in Hokkaido, which forms a rich field for rape, declined by 10 per cent. In view of the local demand, rape oil advanced during September.

New Books.

These notes do not necessarily exclude subsequent reviews of the works. Any of these books printed in Great Britain can be supplied, at the published price, to readers of this journal on application (with remittance) to the Publisher of "The Chemist and Druggist," 42 Cannon Street, London, E.C.

American Annual of Photography, 1908. 8vo. Swd. 3*s.* (Dawbarn & Ward.)

Bruce, E. M. *Detection of the Common Food Adulterations.* Cr. 8vo. 5*s.* net. (Constable.)

Melick, C. W. *Dairy Laboratory Guide.* Cr. 8vo. 5*s.* net. (Constable.)

Wagner, E. *Recipes for the Preserving of Fruit, Vegetables, and Meat.* 7½×4½. Pp. 128. 5*s.* net. (Scott, Greenwood.)

"DOSE-TABLE FOR STUDENTS OF PHARMACY" is the title of a reprint from "The Art of Dispensing" which the Publisher of the *C. & D.* sends free to apprentices and assistants on application. A stamped and addressed postal wrapper should accompany each request.

MILES ON MEDICINE.—Speaking at the opening of the "Tribune" food exhibition on January 21, Mr. Eustace Miles, the well-known athlete and vegetarian, said when the English cook cooked vegetables they were generally served up as shreds corresponding to wet sawdust, and the juice was thrown down the sink. The juice was really the life of the vegetable, and this juice was really the most precious medicine he knew. When the juices were properly extracted by simmering they were perfectly pure, and were the most wonderful cure he knew for eczema, most gouty diseases, and nervous disorders. The method of obtaining the juice was to take the vegetables and cut them up, put them into a stockpot as the country French people did, and let them simmer. After pressing them down for three or four hours we obtained the most precious medicine we got in this country. The right time to take the drink was the last thing at night. He believed if one's body were cleansed internally by cleansing drinks people would not suffer from cold at all. In conclusion, in referring to curative drinks, he said the best remedy for a cold was pure honey and some lemon mixed, taken hot the last thing at night.



TO CORRESPONDENTS.—Please write clearly and concisely on one side of the paper only. All communications should be accompanied by the names and addresses of the writers. Publication of letters does not imply our agreement with the arguments or approval of the statements therein. If queries are submitted, each should be written on a separate piece of paper. We do not reply to queries by post, and can only answer on subjects presumably of interest to our readers generally. Letters received after the early posts on Wednesday cannot as a rule be dealt with in the current week's issue.

BUSINESS INFORMATION.—We have very full records of the makers or agents for articles and products connected with the chemical and drug trades, and supply information respecting them by post to inquirers. Inquiries regarding any articles which cannot be traced in this manner are inserted under "Information Wanted."

Spoonfuls by the Metric System.

SIR,—I expect that there is by now very little difference of opinion between chemists as regards the adoption of the metric system both for manufacturing and dispensing. Nor do I think any doubt can exist that any system of "equivalents" of our present system and the metric, so far from helping, positively stands in the way. The only sure and quick way, as remarked in the "Extra Pharmacopœia," is the definite adoption of the one and the equally definite rejection of the other. We shall never be at home in either so long as we try to think in both. But my chief object in writing this note is to call attention to what seems to me an equally formidable obstacle—namely, the adoption of the French equivalents for tea- and tablespoonfuls as given in the "Extra Pharmacopœia." The teaspoonful (5 c.c.) is, of course, right; but the idea of a tablespoonful as equivalent to three teaspoonfuls, or 15 c.c., a wineglassful as 60 c.c., and, as a matter of course, six teaspoonfuls, or 30 c.c. as two tablespoonfuls seems to me to at once do away with all the utility of the system. As an instance, turn to specimen prescriptions in the "Extra Pharmacopœia." One is given as—

Bismuth. salicyl. ...	...	...	8.0 gm.
Sod. bicarb. ...	...	...	8.0 gm.
Ac. hydrocy. dil. ...	...	...	3.0 c.c.
Tr. nuc. vom. ...	...	...	7.0 c.c.
Spt. chlorof. ...	...	...	14.0 c.c.
Aq. menth. pip. ad ...	...	...	200.0 c.c.

Dose: One tablespoonful (15 c.c.).

Now try to get at the single dose of the ingredients in that prescription. First of all we have the mental effort of dividing 200 by 15 to get the number of doses, and we find that we have no clear number at all, the figures working out at a recurrent decimal (13.33). Then the quantity of each ingredient would have to be divided by 13.33. As regards the 8 gm., that comes practically to 6; but this number and 13 are nearly the worst numbers to deal with when it comes to reckoning or factors, and certainly are not metric or decimal. The 7 c.c. divided in the same way comes out at 5.25206, etc. (I am afraid, sir, you would grudge me any further addition to the quotient!), and the 14 c.c. at double that, whatever it may be. Exactly the same objections apply to the second prescription:

Potas. bromid. ...	...	...	10.0 gm.
Liq. morph. hyd. ...	...	...	50.0 c.c.
Syr. limonis ...	...	...	20.0 c.c.
Aq. ad ...	...	...	250.0 c.c.

Two tablespoonfuls (30 c.c.) every three hours.

Fancy 250 divided by 30! It will be observed that my objections apply purely to the adoption of the equivalent for a tablespoonful in terms that are not metric, and to the consequent mental fatigue entailed on the medical man and chemist. While we are about it, we ought to put the whole thing on a scientific basis. As a matter of fact, it is quite time the old "tablespoonful," with its uncertain

measurement, was altogether abolished, and definite "parts" bottles used only. This has been done so long now that no hardship is involved and accuracy would be secured. But if we are to have the "tablespoonful" ordered along with the metric system, let us have some calculable ratio, say of 5 c.c. teaspoonful, 10 c.c. dessert, and 20 c.c.—or 25 c.c. better still—table. I marvel that Dr. Martindale should so ably advocate a system which is right, and then encumber it with a side issue worse than the original system. I should, in conclusion, like to express my hope that we shall, in any case, adhere to the good old rule of Squire's: "Solids by weight, liquids by measure."

Yours faithfully,

76 Kensington Park Road, W. HERBERT ROBERTS.

Observations by "Xrayser."

SIR,—It is interesting to note how this gentleman's opinions have changed in the last two years. Then, when an apothecary's assistant was fined for selling a pennyworth of poison in a chemist's shop (although legally qualified to sell in the shop of an apothecary), "Xrayser" said, "Quite right; fine him." Now that the Pharmacy Board of New South Wales thinks that if a man is qualified to sell poisons there he is in any part of the Empire, "Xrayser" says, "I agree with you." I am wondering if this is the average sense of "justness" possessed by chemists generally. Certainly, if a man is qualified to sell and dispense poisons in a chemist's shop he cannot possibly become unqualified the moment he sets foot in the shop of an apothecary, and *vice versa*.

Faithfully yours,

X. Y. Z. (93/23.)

[We do not doubt that "Xrayser" will duly attend to "X. Y. Z.," but we cannot let this letter go without pointing out that the apothecaries' assistants' certificate is restricted in its application to service with a licensed apothecary. For any other statutory service it is entirely inoperative, and any effort under the present law to make it serve for selling poisons elsewhere than in the shop of an apothecary must be met by the provisions of the Pharmacy Act, 1868.—EDITOR.]

Sheep-dip in Russia.

SIR,—In your issue of January 18, referring to the tariff debates in the Australian House of Representatives, you report the fact that Cooper's sheep-dip "is admitted free into Russia, the most protectionist country in the world." "All sheep-dips are not alike, but Cooper's sheep-dip is unique," is the sentence which follows. What I want to point out is that the latter quotation is the dictum of "one member of the committee," and that Cooper's dip is not "unique" in being admitted into Russia duty-free. All arsenical sheep-dips of the same nature as Cooper's are, after certain formalities, admitted duty-free into Russia, just as they also are into the United States, another of the "most protectionist countries in the world."

Yours truly,

ONE INTERESTED. (90/67.)

The Guild Secretary.

We mentioned last week, page 82, the confusion which has arisen in regard to the personality of the Secretary of the proposed Chemists' Guild, and explained that Mr. W. Johnston, Secretary of the Chemists' Defence Association and Assistant Secretary of the P.A.T.A., is not the person. Mr. Johnston now sends us a letter in which he says:

It has come to my knowledge that a number of my friends throughout the country are under the impression the circulars have been sent by me. While offering no opinion on the proposal, I should be obliged if you would allow me to intimate that I have no connection with it whatever.

Appreciation.

A Member of the Pharmaceutical Society (93/49), writing to us on January 21, says:

I have had your journal for so many years now that I should feel it a business loss and a business neglect not to keep myself in touch with your trade information and political views, with which latter I by no means always coincide. Wishing you an extended circulation.

W. N. S. (93/59) also writes: "Diary to hand this morning, for which please accept my best thanks. It is a most valuable publication, and I am convinced that in the coming months it will prove what a sound investment 10s. is in the C. & D."

Dispensing Notes.

An Alkaloidal Precipitate.

Dispenser (85/71) would like to know the reason of a thick deposit forming in the course of an hour in the following mixture:

Hydrarg. perchlor. ...	...	...	gr. j.
Potass. iodid. ...	...	...	5j.
Tinct. nucis vom. ...	...	...	5ij.
Aq. chloroformi ad ...	...	...	3vij.

[Mercuric chloride and potassium iodide are the constituents of Meyer's alkaloidal reagent. The precipitate in the mixture consists chiefly of brucine and strychnine iodo-hydrargyrate, with a little fat and extractive matter.]

A Troublesome Mixture.

SIR.—What is the best way of dispensing the following prescription?

Potass. bicarb. ...	...	...	5j.
Magnes. sulph. ...	...	...	5ij.
Tr. nuc. vomic. ...	...	...	5j.
Liq. euonymi. ct cascara ad ...	...	...	3ij.

The effervescence makes a fearful fuss with the liquor and takes long to subside.

Yours faithfully,
S. E. LOCK.

[The magnitude of the effervescence depends mainly on the character of the liquor. Some are alkaline, others acid. The acid kind increases the effervescence which between the potassium bicarbonate and magnesium sulphate is of a mild sort. If the liquor and the salts be mixed in a shallow basin, and warmed with stirring, the reaction is soon complete and frothing settled. This would dissipate some spirit—if the liquor contain any. The simplest way is to put the salts in a basin with 3 or 4 drs. of water, heat, stir, and evaporate to a paste, then rub up with the liquor, and add the tincture at the end.]

Legal Queries.

For concise statements respecting various Acts which affect directly or indirectly the Chemical and Drug Trades, see the "C. & D. Diary," 1908, p. 456; Stamped Medicine Law, p. 435; Pharmacy and Poisons Law, p. 448; and Patents Law, p. 442.

J. E. S. (87/12).—Apart from the possessive-case name (which in itself involves the preparation in medicine stamp-duty), your label incurs liability through holding out the soothing-syrup "for the stomach and bowels of children." See Body-name paragraph in *C. & D. Diary*, p. 436.

H. N. (91/30).—It is not compulsory on entering for the Minor examination to produce a certificate of apprenticeship. All that is required is a declaration signed by a registered chemist and druggist, pharmaceutical chemist, or medical practitioner to the effect that the applicant has been engaged for three years in dispensing medical prescriptions. It is customary for those in the wholesale trade to get this dispensing experience from a school of pharmacy or local dispensary.

G. R. L. (89/74).—The Post Office do not object to shopkeepers employing special messengers to deliver circulars, but the messengers must actually be employed by the shopkeeper. If he goes to a circular-distributing agency, that agency, the Post Office authorities say, breaks the law by undertaking the work which only the Post Office is entitled to do according to Act of Parliament.

Miscellaneous Inquiries.

We endeavour to reply promptly and practically to trade questions of general interest, but cannot guarantee insertion of replies on a particular date, nor can we repeat information given during the past twelve months. A preliminary condition for reporting on samples submitted is that all particulars as to source and uses are given to us.

Blackleg (60/15).—The blackleg inoculating-preparation is not amenable to analysis. It is probably a variation on the use of the seton which is used as a preventive. The seton—a piece of white linen tape smeared with a little blister-ointment—is inserted on one side of the dewlap. The operation is done in September or October.

Veritas (62/59).—The LUNG-HEALER and BLOOD-CLEANSER is tar-water. The individual who recommends it so much is evidently a disciple of Bishop Berkeley, who published his book on the virtues of tar-water in 1744. Previous references to the matter have appeared in the *C. & D.*, January 17, 1903, p. 95, and August 31, 1889.

Boric (54/71).—MILDEW-PREVENTIVE IN COTTON GOODS.—The commonest antiseptic which is added to the sizing-material to prevent mildew in the process of manufacturing calico is zinc chloride. Other agents are sodium chloride, alum, carbolic and cresylic acids, salicylic acid, and thymol. Your sample, however, is new to us; it consists of anhydrous sodium sulphite. We should have been glad to have had particulars of the proportion that is used.

J. G. (50/17).—The cattle oil appears to be a sample of black oils, while the tendon liniment is a spirituous solution of menthol. You did not give any particulars of the samples.

J. H. M. (Cape Colony).—(1) LIVER AND STOMACH CORRECTIVE MIXTURE.—The following will suit the label you send:

Sodii bicarb. ...	...	...	3ij.
Pulv. rhei ...	...	...	5j.
Tinct. podophylli ...	...	...	℥xxxij.
Spt. ammon. arom. ...	...	...	℥ss.
Spt. chloroformi ...	...	...	℥ss.
Aq. menth. pip. ad ...	...	...	3vij.

Dose: One tablespoonful three times a day, after meals.

(2) GODFREY'S CORDIAL.—You ask if the formula given in "P.F.," p. 595, is "quite safe" for children, and suitable for making a speciality of. The recipe is probably the best of the many which have been put forward, but the inherent objection to all the formulae for Godfrey's cordial is that they must contain opium, which in the opinion of many is a drug that should never be administered to children. It would be better to specialise with a carminative other than opium.

Country (60/54).—WORMS ON LAWNS.—The non-poisonous worm-destroyer for use on grass-lawns appears to owe its efficacy to tannin, which is objectionable to worms. We cannot make out the particular vegetable-matter which is used in this case, but a mixture of cutch and sawdust would fairly well represent the destroyer.

F. H. R. (50/16).—PIANO-KEY CLEANING-POWDER.—This appears to consist of putty-powder with some alkaline powder, such as pearlash. It is mixed with water, and spread on the yellow keys. It is generally effectual in removing grease, and so improving the colour of the ivory. On the manufacturing scale hydrogen peroxide in alkaline solution is used. The keys are left in the warm liquid for some days, but the process is not invariably successful.

G. H. W. (Trinidad) (32/32).—Do we understand that the liquid you send is used for destroying parasites on horses? It is new to us under the title you give. Please send us full particulars of how it is used.

X. Y. Z. (Brisbane) (234/54).—We have examined the tablets and ointments with some interest, but the results are disappointing in regard to revealing some new remedies. The tablets "for physical and mental ailments" do not contain caffeine as you suggest, but our analysis indicates the composition to be sodium bicarbonate, phosphate, and dextrin. The ointment or "eye-food" which "enables glasses to be thrown aside" is a rather stiff paraffin base which we suppose is used as a massage-ointment. It is obvious that no ointment could correct defects of the refraction, so that we have not carried our tests very far.

T. P. (Haarlem) (8/46).—BOOT-CREAM.—A model formula was given in the *C. & D.*, June 22, 1907, p. 950. Here is another, which is stated to be successfully used in operations conducted on a large scale:

Yellow wax ...	...	...	1 lb.
Turpentine ...	...	...	2 pints
Soft soap ...	...	...	1 lb.
Pearlash ...	...	...	½ oz.
Aniline dye ...	...	...	½ oz.
Water ...	...	...	6 pints

Melt together the beeswax and turpentine. Separately boil together the soap, pearlash, dye, and water; remove from the fire, and pour the beeswax solution into the soap solution, and stir well together till cold. The dye, which is used for colouring-purposes, may be hickory brown, but if the polish is required for black boots it is replaced by nigrosine and ivory-black.

E. E. F. (58/20).—BLEACHING LACE.—The cream-coloured lace will probably readily be bleached by treatment with chlorine. Immerse it in a clear solution of chlorinated lime, made by shaking chlorinated lime with water and allowing it to settle over night, and then after squeezing out the excess of moisture, but without rinsing, put the lace into a weak acetic-acid solution. Thorough rinsing in water is needed after this bleaching-process, and it is better to allow the lace to soak in a solution of sodium hyposulphite for some time (to act as an antichlor) before finally drying it.

North Staffs (77/54).—CURING MOLE-SKINS.—The method given for rabbit-skins in the *C. & D.*, December 21, 1907, p. 953, is also applicable to mole-skins.

THE CHEMIST & DRUGGIST SUPPLEMENT.

OFFICE: 42 CANNON STREET, E.C.

SATURDAY, JANUARY 25, 1908.

PUBLISHER'S NOTICE TO ADVERTISERS.

Advertisers are desired to take note that the advertisements of Businesses for Disposal and Wanted, Situations Open and Required, Exchange Column, &c., belong to the **PREPAID CLASS**, and to ensure the due insertion of the announcements the remittances must accompany the instructions. A great amount of unnecessary correspondence is occasioned by the non-observance of this regulation, and the Publisher hopes that the advertisers will assist in the quick preparation and despatch of the Supplement by strictly observing this rule.

A Copy of this Supplement is inserted in every Number issued of "The Chemist and Druggist."

The old style

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Be up-to-date and advertise in
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*It pays to pay for advertising
in this modern medium.*



CHEMISTS' TRANSFERS.

Messrs. ORRIDGE & CO., 56 Ludgate Hill, E.C.

May be consulted at their Offices on matters of SALE, PURCHASE, and VALUATION.

1.—LONDON, S.W.—Situate in a good position in residential locality, well-established Business; increasing income; returns last year about £1,400; *profits exceed the usual rate of middle-class business*; well-fitted shop, fully stocked; terms, goodwill £200, stock and fixtures at valuation.

2.—LONDON, S.W.—Ready-money Retail, situate in busy locality; returns £1,000 yearly, and yielding a *net profit* of 25 per cent.; double-fronted shop; rent £45; lease if desired; price £830.

3.—NORTHERN HEIGHTS.—Middle-class Business; Retail, Dispensing, and Optical; returns last year £592, all good profitable work; double-fronted shop, corner position; price £400, about the value of stock and fixtures.

4.—MIDDLESEX (within easy distance of town).—Established Business, held by vendor 3 years; returns between £450 and £500 yearly; *gross profit* £237; well-appointed shop, situate in the main thoroughfare; price £330.

5.—LONDON, N.W.—Good-class Pharmacy; Retail and Dispensing; returns for 1907 £2,473, formerly about £2,900; excellent opportunity for extension; large, well-fitted shop; corner position; comfortable residence; held on lease; immediate sale desired; terms, valuation of stock and fixtures, and goodwill to be arranged equitably.

6.—HOME COUNTY (Inland Health-resort).—Good-class Retail and Dispensing; returns between £550 and £600; good profitable business; well-fitted shop, fully stocked; the house is convenient and in good repair; moderate rental; price £550.

7.—LONDON (near Victoria Station).—Old-established business, held by vendor over 25 years; returns average about £1,450 yearly; *net profit* £497; price £1,150.

8.—EASTERN COUNTY.—Country Business; old-established concern; returns average about £2,700 yearly; *net profit* between £450 and £500; terms, lease and goodwill, £200; stock and fixtures at valuation.

9.—HANTS (Health-resort).—Good-class Business, Retail, Dispensing, and Optical; returns about £850 yearly; *net profit* £225; roomy house; 21 years' lease; full investigation is invited; references exchanged if desired; terms £150, and valuation of stock and fixtures.

10.—NORTH WALES (attractive locality).—Well-established Business, Dispensing and Retail; returns between £1,900 and £2,000 per annum; *net profit* about one-third; commodious residence; held on lease; price £1,600.

11.—LANCASHIRE.—Old-established Business, Retail and Photographic; returns last year £1,500, formerly about £1,800; owing to ill-health the vendor has been unable to give the business personal attention; terms, valuation of stock and fixtures, estimated roughly about £600.

12.—OXON.—Very old-established Business, entirely unopposed; returns under manager about £500; *net profit* £160; large roomy house; rent £33; new lease will be granted; price £320.

13.—KENT COAST.—Established Business, Retail, Dispensing, and Photographic; returns average over £1,000; *net profit* £240; estimated value of stock and fixtures £675; immediate sale necessary; offer wanted.

14.—STAFFS (Market Town).—Good-class Light Retail and Dispensing Business; central situation; returns about £1,300; *net profit* £350; terms, lease and goodwill, £300; stock and fixtures at valuation.

Particulars of any of the above will be furnished on application.

N.B.—NO CHARGE TO PURCHASERS.

VALUATIONS FOR STOCKTAKING.

Messrs. O. & Co. desire to emphasize the necessity of a Periodical Statement of Account, by which means alone Profit, the value of Business, &c., can be determined. Involving as this does the labour of Stocktaking and Valuation, it is often omitted, and eventually becomes the cause of confusion and loss.

Messrs. O. & Co. are prepared to undertake these essential duties and will make Special Terms for such services.

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VALUATIONS have always had our special and personal attention, and an experience of thirty years is at your disposal **AGENCY**.—We have always a large number of *Buyers* on our books, and we can frequently find a Purchaser at once. We also have a *Private Register* for vendors who are in no hurry to sell and who do not wish their businesses to be advertised.

STOCKTAKING SPECIALISTS TO THE ENTIRE DRUG TRADE.

(See page 78 C. & D. Diary.)

This is essentially an *age of Specialists*. In no form is this more pronounced than in the Drug-trade. *The old-fashioned Chemist never takes Stock*—never knows how he stands—not quite sure that he does stand—only certain of one thing, that he is behind in the race. *The Modern Chemist takes Stock regularly*, and it is here that we as *Stocktaking Specialists* step in. We take the stock in detail, extend and complete the matter, return the books, and where desired audit the accounts and make a real live Balance Sheet at a small cost. We are quite alive to the fact that for *Stocktaking* purposes the ordinary valuation terms are quite prohibitive; our large staff of stocktakers enables us to do this at a trifling cost, and we make such moderate charges that you cannot do without us. Correspondence invited.

£5,000 returns.—**WEST MIDLANDS.**—Good General, Light Retail, and large Wholesale trade with small shops; suit 2 gentlemen; the business is increasing rapidly every year; good double-fronted shop and large premises; price £3,000; references required.

£2,300 returns.—**MIDLANDS.**—General Mixed Retail, Oils and Colours, making a clear net profit of over £400 per annum; a fortune has been made in the business, and a buyer can make another; price £1,200 to £1,400.

£1,150 returns.—**LANCS.**—Light Retail, with Photo and Optic trade; net profit £400, proved; vendor having had long illness desires a good rest, and will accept £1,200, or valuation of stock and fixtures.

£1,050 returns.—**WALES (Central).**—Very old-established Family Retail, showing a clear net profit of £350; good house; long lease; price £800, or reasonable goodwill and valuation.

£960 returns.—**LINCS.**—Retail, Prescribing, and Agricultural; good sale of own preparations; good house and large garden; price £350, much less than value of stock and fixtures.

£400 returns.—**NOTTS.**—Good Cash Light Retail; nice house and shop, and profitable; price £175.

MESSRS. BRETT & CO. are in immediate want of several good-class businesses, that will bear every investigation and with a net profit of not less than £400. Clients waiting with cash, which can be paid down at once, for really sound concerns. Correspondence invited which is treated as strictly confidential. Businesses can be sold at once, without advertising.

£500 returns.—**YORKS.**—High-class Retail, Prescribing, and very good own preparations; can be very much increased; splendid premises; price £250, or near offer.

£800 returns.—**KENT.**—Good class Light unopposed Country Retail; nice house and shop, with a net profit of £210; price £450, or valuation; this is a splendid chance for a beginner; carried on as a branch at present.

£800 returns.—**MIDLANDS.**—Light Retail, Prescribing, and Photo goods; large corner shop, in good position; low rent; net profit £220; price £400; vendor taking larger concern.

£650 returns.—**MIDDLESEX.**—Good-class Retail, Prescribing, Dispensing, and Photo in good shop; nice house; in pretty district; net profit £200; stock and fixtures at valuation (£400).

£620 returns.—**LANCS.**—Light Cash Retail, Photo, and Optics, in a very busy small town; rent £30; price £380.

£650 returns.—**CHESHIRE.**—Good-class Dispensing and Light Retail; good house and shop; low rent; net profit £200; splendid chance; price at valuation, about £550.

MESSRS. BERDOE & FISH,

*Chemists' Valuers and Transfer Agents,***35 JEWRY STREET, FENCHURCH STREET, CITY.****TELEPHONE: 1809 CENTRAL****Have the following Businesses for Disposal. (No charge to Purchasers.)**

1.—CHESHIRE.—Cash Retail in middle and working class locality; returns £1,250; no Photographic, Optics, or Teeth, but much wanted; stock in perfect condition, and fixtures good; books (examined by us) properly kept, showing every penny taken and spent, and will bear investigation; price about £650.

2.—SOUTH COAST.—High-class Retail and Dispensing Business, in high-class seaside resort; returns about £2,300; gross profit 50 per cent.; very handsomely fitted and well stocked; splendid residence attached; price £1,500, or valuation terms can be arranged.

3.—BANKS OF UPPER THAMES.—Good-class Retail, Dispensing, and Prescribing Business, in good residential town; returns £1,000; net profit £300; very good position; scope for increase; attractive Pharmacy, well fitted and stocked; price £800; personally inspected.

4.—EAST MIDLANDS.—Old-established Retail, Prescribing, and Agricultural Business, in good market town; returns £968; clear net profit nearly £250; splendid house; large garden, etc.; sole cause of sale leaving the trade; price £350, less than value of stock and fixtures.

5.—WEST END.—High-class Dispensing and Retail Business, carried on under management, and occupying splendid position in one of London's best thoroughfares; elegantly fitted and heavily stocked; low rent, on long lease; cash required £1,500, for which full value is offered; references required.

6.—LONDON, N. (few miles out).—Sound middle-class Suburban Business, with Branch; returns over £1,300; net profit £373, after paying all expenses, including manager; very good positions; growing district; no keen competition; good reasons for selling; price £750, or would sell separately.

7.—NORTH OF ENGLAND.—Light Retail, Dispensing, and Prescribing Business, in splendid position in an important town; returns £2,000, with room for increase; very convenient premises; large, well-fitted shop, and heavily stocked; price £250 and valuation of stock and fixtures.

8.—HAMPSHIRE COAST.—Good-class Retail and Dispensing Business; main road position; handsome modern Pharmacy, fully stocked; good residence; net profit £330, after paying every expense; price £850, or valuation terms arranged.

9.—YORKSHIRE.—A genuine Light Retail and Prescribing Business, with own Specialities; very few Patents; returns over £500; clear net profit £170; low rent; commodious house and shop; best business position in the town; price £250; full value offered.

10.—MIDLANDS (Inland Health Resort).—First-class Retail and Dispensing Business, entirely under manager; returns over £800; excellent profits; principal would do at least £1,000; handsomely fitted shop, good position, and heavy stock; price, simply valuation of stock and fixtures.

11.—LONDON (10 miles out).—Light Suburban Retail Business; quite unopposed, in pleasant residential suburb; returns nearly £500; excellent house, with every convenience and garden; shop is well fitted and stocked; price £350, or valuation.

12.—LONDON, S.E.—Good middle-class suburban Retail Business; has been neglected; was doing over £1,000; present returns £8 a week; large double-fronted shop; good main road position and well stocked; price simply valuation, about £160.

BUSINESSES WANTED.

MESSRS. BERDOE & FISH, having recently been successful in disposing of a large number of businesses, are in want of genuine concerns returning from £500 to £3,000 for clients still unsuited. Strictest confidence and privacy guaranteed. Correspondence invited. Terms sent on application.

BOOKKEEPING.

We advise all chemists in business to read the article on Bookkeeping which appears on page 218 in this year's *C. & D. Diary*; it is one of the most useful ever published for chemists in business; at the same time you should also read page 76 in the same Diary.

PARSON C. BAKER

174 VICTORIA ST., LONDON, S.W.

Recommended by—MESSRS. BARRON, HARVEYS & CO

Telephone:
No. 27 Victoria.

An old-established, prosperous Business; excellent position, near station, centre of residential town few miles out; returning £800; good prices; rent £60; under exceptional circumstances, £250.

POPULOUS TOWN (Yorkshire).—Old-established, prosperous Business, with Wine and Spirit Licence, returning over £1,000; good house and shop, in good position; rent £70; ill-health only; £350.

GOOD Dispensing and Retail in South Coast town, returning last 3 years £850, £1,000, £1,050, and still increasing; good house, nice shop; high-class trade; very small goodwill and valuation, or offer.

DISPENSING and Retail, with Dentistry combined; returns £1,400; over £400 net profit; good shop, well fitted; large house; moderate rent; inspection invited; first reasonable offer; together or separate; no goodwill; valuation only; Dentist 1½ year net profit.

LARGE Provincial Town (Midlands).—Returns £400; rent £35 10s.; Light Retail and Dispensing; good house; excellent position; net cash £150, to make speedy sale.

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has always a number of good Businesses for Sale, also Clients open to Purchase good, sound concerns. Strict secrecy. Correspondence solicited. Valuations for Transfer, Probate, and Stocktaking on reasonable terms.

TO SUBSCRIBERS ABROAD.

We desire particularly to draw the attention of Colonial and Foreign Subscribers to the fact that in cases where they require partners, agents, or assistants, or wish to sell their businesses, an advertisement in this Supplement, placed in every copy of "The Chemist and Druggist," should be the readiest means of helping them to attain their object. The tariff for such announcements is given under the appropriate headings in the Supplement. Instructions and remittances can be sent to us direct or through the advertisers correspondents in this country.

BUSINESSES FOR DISPOSAL.

3s. 6d. for 50 words or less; 6d. for every 10 words beyond, prepaid.

NOTE.—Replies can be addressed to this Office and forwarded to the Advertiser for an Additional charge of 6d.

COLONIAL BUSINESSES.

We call the special attention of our Colonial subscribers to the opportunity this Supplement affords when they wish to dispose of their Businesses, of getting into touch with likely buyers either at home or in the Colonies.

BIRMINGHAM.—Exceptional opportunity; good-class neighbourhood; Chemist's Business for Disposal through death; to sell immediately, any reasonable offer accepted, even at a sacrifice; for anyone contemplating opening, an ideal chance this; plenty of scope; in growing district; no company opposition. 16/27, Office of this Paper.

CARDIFF (Suburb).—At once, or in March, rare chance for young qualified man to secure an established Retail, with Wine Licence attached, upon moderate terms; capable of extension; low rent; lease; owner wishing to give up the business; if at once ample introduction given. "P." c/o Kernick, Cardiff.

EAST KENT.—Profitable Light Retail and Dispensing Business; returns £1,000, increasing; net profit 30 per cent.; low rent; owner, who is taking business in South, will accept £580 cash to effect quick sale; fortnight's trial allowed; no agents; 7,691 Prescriptions last year. 133/4, Office of this Paper.

LANCASHIRE (within half a mile of Southport).—Good old-established Business for Disposal; returns £900; large and convenient house and outbuildings; rent £50; vendor is landlord; price valuation only, about £400. F. W. Smith, Chemists' Valuer, 3 Belgrave Terrace, Leeds.

LEEDS.—Drug-stores for Disposal; suit Chemist commencing; taking £4 10s. to £5 weekly, could be doubled by qualified man; splendid house and shop, on main road; rent 12s. clear; good reason for disposal; £95, or valuation. 132/27, Office of this Paper.

LIVERPOOL.—Growing high-class Dispensing and select Retail, doing over 2,500 Prescriptions annually; modern, handsome Pharmacy; would suit Lady Pharmacist; present proprietor would introduce for 1, 2, or 3 months by arrangement; cash price £480. Particulars from "A. S. M." (134/14), Office of this Paper.

LONDON, S.E.—Drug-stores; main road; old-established; large double-fronted shop; large house, side and back entrance, easily let for £30; increasing takings; good scope for Photography, Dentistry; dark room; exceptional chance for beginner; rent £65; long lease; price valuation only; sound reasons for selling; one of the straightest concerns in the market; useless to reply unless commanding about £160. 132/14, Office of this Paper.

LONDON, N.W.—This is a bargain; price low to immediate buyer; a good modern man would do well; good reasons for selling; well-fitted shop; good-class neighbourhood. Apply, in first instance, to "Genuine" (130/23), Office of this Paper.

LONDON, N.—A grand opportunity to acquire a genuine Drug and Photo Stores, handsomely fitted and well stocked, in main thoroughfare; owner having another business, for quick sale will part at valuation, about £590. 136/15, Office of this Paper.

LONDON (West-end).—Select Dispensing Business, with first-class Family connection, in good residential district; between five and six thousand prescriptions yearly; changed ownership once in 50 years; steady sale own Proprietaries; very satisfactory reason for disposal; good house, with private entrance and garden; price £900; only genuine buyers with banker's reference treated with; no agents. "Cystamine" (136/2), Office of this Paper.

LONDON (Eastern Suburb).—Light Retail for Disposal; well fitted and stocked; main thoroughfare; returns about £470; moderate rent; long lease; price, valuation of stock and fixtures. "Beta" (135/33), Office of this Paper.

LONDON, W.—A profitable Business for Sale; urgent reasons for selling; a good Prescribing business; net profit £200; for prompt sale low figure taken. 137/4, Office of this Paper.

LOWESTOFT.—For Sale (immediate disposal), Light Retail and Dispensing, Photographic; well situated; returns £970; valuation stock and fixtures, £475. For further particulars apply, Mr. Fred. S. Culley, Chartered Accountant, Queen Street, Norwich.

MIDLANDS.—Light Retail and Prescribing; returns £500; few Patents, some Photographic; rent £35; lease; net profits average £180; for valuation of stock and fixtures; full details at personal interview only; to early cash buyer rent and rate free till Lady Day; references exchanged; no curiosity-mongers need apply. Address, "Ajax" (133/31), Office of this Paper.

MIDLANDS.—Light Retail and Prescribing Business for Sale; exceptionally good profits; few Patents; established 20 years; suit either qualified or unqualified; an opportunity seldom met with. Apply, 132/35, Office of this Paper.

MIDLANDS.—Exceptional opportunity; unopposed Light Country Retail and Prescribing Business, returning £350, with scope for increase; net profit £130; double-fronted shop, well fitted and stocked; rent, rates, taxes under £25; convenient house, garden, etc.; price £175, or near offer; only wants seeing; every investigation courted. Apply, "Sourd" (136/23), Office of this Paper.

BUSINESSES FOR DISPOSAL

(continued.)

WEST OF ENGLAND (in a fashionable Seaside resort).—A first-class Retail and Dispensing Business, with large sale of own Proprietaries; returns approach £3,000 yearly, and the net annual profit is £800 after all expenses are met; good residence; nice garden; low rent; long lease; cash required, £2,400; fullest investigation offered, and soundest reasons for disposal. Applicants must enclose banker's or Wholesale reference, "A. C. E." (136/25), Office of this Paper.

YORKSHIRE.—Old-established Cash Retail, with Prescribing and good sale of own Proprietaries; busy thoroughfare; returns £500; scope for large increase; net profit one-third; good house, private entrance, large warehouse; rent £40; vendor taking larger business will sacrifice for £225 cash; stock and fixtures worth £300. 134/5, Office of this Paper.

CASH Drug-stores (near Shepherd's Bush).—No Patent-medicines; a very few Proprietary goods sold; 11 years in same hands; now retiring; shop and 6 rooms; rent £40, on lease; £150, all at; stock £40 to £50; thoroughly genuine. Apply, Messrs. Whitley & Son, 1 Hills Place, Oxford Circus, W.

FINE Corner Shop, old-established, in busy main road; capable of extension; suit Store trade; reasonable offer entertained; really good opportunity. Apply, at once, 136/9, Office of this Paper.

FOR immediate Disposal, a sound little Business in country market town in West of England; does over £500 per annum, at good profits; Photographic trade and Prescribing; nice house and well fitted and stocked shop; rent very low; suit young beginner or unqualified man; family reasons for selling; price £250, part of which may remain; principals only. "Pyro" (135/17), Office of this Paper.

FOR Sale, in small country town, stone-built Shop and Private Residence, for many years in the occupation of an old-established Chemist and Druggist; owner recently deceased; premises now vacant. Apply, Davis & Champion, Auctioneers and Estate Agents, Stroud, Glos.

GENUINE Chemist's Light Retail and Dispensing Business in mid-Cheshire to be sold, through death of proprietor; well-fitted shop, with house attached; rent about £20; price £200. Apply, 131/29, Office of this Paper.

MEDICATED Lozenge Business, Manchester; established 10 years; trade £10 weekly; price £250. Express Business Transfer Co., 285 Bury New Road, Manchester.

MIXED Business; returns £550; net profit £180; small house; long lease; price £300, which is less than valuation stock and fixtures. 136/33, Office of this Paper.

NOTICE.—Dispenser and Medical Prescriber would like to meet a gentleman who would take over small Retail and Light Cash Prescribing Drug-store; stock, fixtures, and private formulas, £600 (part can remain); rent, taxes low; sound living; satisfactory reasons for disposal; opening for Dentistry. Principals need only apply, stating full particulars and requirements to "West of England" (128/33), Office of this Paper.

OLD-ESTABLISHED provincial high-class Retail, with considerable Wholesale (Surgeons and Chemists); steadily increasing; present returns over £6,000; would suit two enterprising young men; present proprietor retiring. Address, 135/7, Office of this Paper.

SMALL Retail Business, with Post-office attached (this covers rates, rent, and taxes), in North London; returns over £600; good sale of own Proprietaries; cash price for quick sale £200; owner having saved money wants a larger business. "Valency" (133/7), Office of this Paper.

SMALL Special Prescribing Business; well known in naval circles; admirably situated, large seaport; comfortable living and increasing; look-up shop; very low rent; suitable to one with a little Medical experience; amount required about £85. Particulars to bona fide inquiries, 134/12, Office of this Paper.

TO Chemists and Druggists.—Exceptional opportunity of acquiring a sound Business.—For immediate Disposal, Business, as above, in N.W. suburb; lease 9 years unexpired, at £95 per annum; corner shop, in prominent position; 7 living-rooms; turnover £2,500; stock, at cost, about £600; price for lease and goodwill, £1,000; stock, fixtures, fittings, etc., at valuation. Further particulars of Francis, Nicholas, White & Co., 14 Old Jewry Chambers, London, E.C. (Chartered Accountants).

£25.—An exceptionally rare opportunity for acquiring an old-established Business in main Road, N.; newly done up; well stocked and fitted; good business neighbourhood and little opposition; to an early purchaser the above unique offer presents itself; moderate rent. Letters to E. Willis, 80 Holloway Road, Islington, N.

£125.—Aa old-established Chemist Business in the South end of Liverpool; well fitted and good working stock; rent £32, house and shop; good neighbourhood; splendid opportunity for small capital. "Alba," c/o H. Jackson & Sons, 29 School Lane, Liverpool.

£450 Cash.—Geauiae Drug and Photographic; lease; low rent and rates; up-to-date large house, side and back entrance; returns average over £900 per annum, increasing each month; net profit £250; anyone willing to work could do £1,200 per annum; established over 50 years, and situated in good-class district 3 miles from Bank, main road; low price stated above will be accepted as the place must be disposed of very shortly. Full particulars of "Genuine," 148 King Edward Road, London, N.E.

£450.—For immediate Disposal, through death of proprietor, Cash Retail Business at Southall; returns £720; net profit £215; neighbourhood rapidly increasing; long lease. Full particulars on application to Britland, 62 High Street, Staines.

BUSINESSES WANTED.

NOTE.—Replies can be addressed to this Office and forwarded to the Advertiser for an additional charge of 6d.

See Publisher's Notice on Front Page of this Supplement.

ADVERTISER is in immediate want of a good-class Family Retail and Dispensing Business, returning £1,500 to £2,000, in healthy town within 50 miles of London; Agricultural trade not objected to; good house essential; cash ready, and can take immediate possession; references exchanged. Apply (in confidence) to "Bona-fide" (136/24), Office of this Paper.

WANTED, to purchase, a neglected Business; or would take Management, with view to purchase; a good opening entertained, in or near London preferred, but not absolutely essential. Address, "Immediate" (136/21), Office of this Paper.

WANTED, at once, good Retail Business in Scotland. Full particulars, including price, returns, reason for sale, 130/18, Office of this Paper.

WANTED, good-class Retail and Prescribing Business, N.E. of England preferred, returning from £500 to £700; must bear full investigation. Terms and full particulars to "Bromide" (133/12), Office of this Paper.

£5 will be given for information for opening (if acted upon); country preferred. 135/29, Office of this Paper.

TO LET.

NOTE.—Replies can be addressed to this Office and forwarded to the Advertiser for an additional charge of 6d.

See Publisher's Notice on Front Page of this Supplement.

LUTON, BEDS.—Lock-up Shop, next door to Post-office; best ready money part of the town; trams will stop at door; good opening for Dispenser; no opposition; no company shops. Apply, J. J. Wooding, Grocer, Luton.

SMALL Lock-up Shops, with basement, to be let, under large block of high-class flats, with other blocks of flats adjacent, near Regent's Park; rents £45 and £40. Apply, Holloway Bros. (London), Ltd., 45 South Audley Street, W., or can be viewed on applying to Superintendent, Hanover House, Regent's Park.

SPACIOUS Shop and good House; centre of Ealing; glass verandah to shelter customers; high-class trades in adjoining shops; rent £125; free to Michaelmas. J. Griffin & Son, Estate Agents, Ealing.

SPLENDID Shop, in grand position, main road, Ealing; close to chief post-office and Town Hall; large, high-class neighbourhood; rent £200; free to June. J. Griffin & Son, Estate Agents, Ealing.

TO Chemists and Druggists.—Shut-up Business Premises to let; established upwards of 40 years; rent only £3 10s. per month and taxes; situated 167 Cambridge Road, Mile End. Apply to Mr. H. C. Gould, jun., 83 Gibraltar Walk, Bethnal Green, E.

SALES BY AUCTION.

See Publisher's Notice on Front Page of this Supplement.

Re J. S. ROGERSON (DECEASED).

24 FOXHALL ROAD, BLACKPOOL.

THURSDAY, JANUARY 30, AND FOLLOWING DAYS.

MR. J. GLASS has been favoured with instructions, by the Administratrix of the above Estate, to SELL by PUBLIC AUCTION, without reserve, the entire STOCK-IN-TRADE, Fixtures, Fittings, Showcases, Bottles, Trade Utensils, Dental Instruments, Patent Dental Chair, etc., of a CHEMIST'S, DRUG-GIST'S, and PHOTOGRAPHIC BUSINESS, with Dental Practice, formerly carried on by the deceased at the above address.

The Business will be offered first in one lot as a going concern, and, if unsold, will be immediately offered in lots.

Sale to commence precisely at 11 o'clock each day.

On view each morning of Sale from 9 o'clock.

For further particulars apply to the Auctioneer at his Offices, 31 Birley Street, Blackpool; 44 Westby Street, Lytham; and 49 Deansgate, Manchester; or to Messrs. Miller, Son & Taylor, 11 Lord Street, Liverpool, Solicitors to the Estate.

FOR SALE.

NOTE.—Replies can be addressed to this Office and forwarded to the Advertiser for an additional charge of 6d.

See Publisher's Notice on Front Page of this Supplement.

MAHOGANY FIXTURES (make a handsome Pharmacy).—Counters, cased fronts; Dispensing-screen; wall-case, 8 ft.; nest drawers, 13 ft.; glass labels and knobs; shelving and cornice; window-enclosure; bent-glass counter-case; perfume-case and desk; carboys, stock bottles, jars, scales, weights; price £65, carriage paid. F. W. Smith, 3 Belgrave Terrace, Leeds.

PARTNERSHIPS.

NOTE.—Replies can be addressed to this Office and forwarded to the Advertiser for an additional charge of 6d.

INVESTOR.—£1,500 required, to increase working capital of a well-known Patent Medicine Co., Ltd., recently under new experienced management; requires increase of capital solely for further advertising development; substantial return could be assured. Only solicitors or principals write, Scampton & Co., 4 and 5 Warwick Court, High Holborn.

THE proprietor of a sound Proprietary, with registered trade-mark and established connection, wishes to correspond with Limited Company with view to extend same; would consider turning over on a royalty. Further particulars to principals only, "Forward" (131/35), Office of this Paper.

APPRENTICESHIPS.

NOTE.—Replies can be addressed to this Office and forwarded to the Advertiser for an additional charge of 6d.

VACANCY for Indoor Apprentice.—F. E. Carpenter, M.P.S., A.A.H., has a vacancy for smart lad; moderate premium; comfortable home. The Royal Pharmacy, Burnham, Somerset.

VACANCY for an indoor Apprentice; must have passed Preliminary exam.; time allowed for study, etc. Apply to W. G. Yeats, M.P.S., 71 East Hill, Wandsworth, S.W.

RESULTS

OF ADVERTISING IN THIS SUPPLEMENT LAST WEEK Jan 18 '08
NATURE OF ADVT. REPLIES

QUAL. MANAGER	56
UNQUAL. ASSISTT	29
TRAVELLER	27
MANAGING ASSISTT	22
QUAL. CHEMIST	21
REPRESENTATIVE	20



This Blackboard demonstrates that Advertisers using these columns get a ready response to their announcements. The figures only refer to some of the letters RECEIVED AT OUR OFFICE on behalf of advertisers who use a number or nom de plume.

SITUATIONS OPEN.

3s. 6d. for 50 words or less; 6d. for every 10 words beyond, prepaid.

RETAIL.

BEACONSFIELD.—Assistant, at once; aged about 23; must be an accurate Dispenser and have good knowledge of Photography; to the right man this is a good opportunity. State salary (indoors) and full particulars to White, Chemist, Beaconsfield, Bucks.

BEXHILL-ON-SEA.—Wanted, by middle of February, an indoor Assistant used to first-class Dispensing and Retail business; a good Counterman, with knowledge of Photography; first-class references indispensable; comfortable home, and abstainer preferred. Apply, stating age and salary required, to F. Wimshurst, Pharmaceutical Chemist, Bexhill-on-Sea.

BIRMINGHAM.—Wanted, qualified Manager for Branch; good Mixed business; one married (no family) preferred; to live on; Extractor, Prescriber, and accustomed to Photography. Fred Barlow, M.P.S., Balsall Heath, Birmingham.

BRIGHTON.—Manager, qualified, married, wanted for small one-man Dispensing Store business, near sea front; good house, private door; must be good Salesman; able to handle customers; good salary and comfortable berth to right man. All particulars in first letter to "C," 69 Walsingham Road, Hove.

BRISTOL.—Wanted, qualified Junior Assistant for front counter; quick, accurate, and of gentlemanly appearance; aged about 22. Apply, stating references and salary required (photo if possible), Ferris & Co., Ltd., Union Street, Bristol.

CROYDON.—Wanted, an experienced Assistant; outdoors. Apply, giving full particulars, to Dr. Roberts, 120 North End, Croydon.

GRIMSBY.—Qualified Assistant required; indoors; must be good Salesman and well up in Photographic trade. Apply, with full particulars and photo, to Charles Dewing, Chemist, Grimsby.

HASTINGS.—Bell & Co., Pharmaceutical Chemists, require the services of a capable qualified Assistant with Dispensing experience; courteous and obliging, and one seeking a permanency preferred; indoors. Apply with full particulars and enclose photograph.

HERNE BAY.—Unqualified; outdoors; about 24; Part-time till June, full-time summer; quick Counterman; good knowledge of Photography, especially developing. Apply, Cole, 56 William Street.

HERTFORD.—Junior Assistant; outdoors; 2 kept; must be good at Photography and Dispensing. State salary, age, and usual particulars, to Geo. Durrant & Son, Chemists, Hertford.

LIVERPOOL, S.—In good-class Dispensing business, near Liverpool School of Pharmacy, a gentlemanly Junior Assistant for February 23, or a few days before; indoors. Please apply, giving height and full particulars, to Anthony S. Buck, 179 Bedford Street.

SITUATIONS OPEN—*cont.*

RETAIL—continued.

LONDON, W.—Assistant, with Dispensing experience, for good-class business; outdoors. Apply, with usual particulars and salary required, to Jones & Bowles, 221 High Street, Kensington.

LONDON, W.—Qualified Assistant (indoors), in good-class Dispensing and Family business; vacant February 13 next. State all particulars to save time to Harding, Chemist, West Ealing, W.

LONDON, S.E.—Wanted, Junior for good-class Family and Dispensing business. Apply, Cadman & Co., 47 Montpelier Vale, Blackheath, S.E.

LONDON, S.W.—Wanted, immediately, gentlemanly Junior Assistant (unqualified, 21 to 23), indoors, for high-class Dispensing business. Apply, with usual particulars, to Pooley, 36 High Street, Wimbledon.

LONDON (CITY).—Junior Assistant; qualified; outdoors; easy hours; accustomed to Light Retail and Dispensing business. Apply, by letter, giving usual particulars and salary required, M. J. Matthaai, 12 Cullum Street, E.C.

LONDON, W.—Qualified Assistant wanted for high-class Dispensing business; indoors. Apply, personally if possible, or with usual particulars, stating age, height, and salary required, to E. Hemingway, 20 Portman Street, Brompton Square, London, W.

LONDON, N.W.—Wanted, a capable Assistant (indoors) for a high-class Retail and Dispensing business; good address, accurate and trustworthy, and well up in Dispensing; also vacancy for a well-educated, gentlemanly youth as Apprentice. W. J. Dalby, 6 Canfield Gardens, N.W.

LONDON, N.W.—Immediately, a smart Junior, used to Dispensing and Counter work; indoors. Apply, with full particulars, to Boxall, 100 The Broadway, Cricklewood.

LONDON, W.—Wanted, a Junior Assistant (indoors), accustomed to good-class Dispensing and Retail. If by letter, please state full particulars and enclose photo, Abel & Co., 108 Queen's Road, Bayswater.

LONDON, S.E.—Immediate; an Assistant (indoors), with a good knowledge of Prescribing, Photography, and Dispensing, in a small business in a military town; good Counterman and able to Extract preferred. Apply, stating age, references, salary (which must be moderate), send photo, to "Extractor," No. 9 The Village, Charlton.

LONDON, S.W.—Junior Assistant; qualified; indoors; must be a neat and accurate Dispenser and accustomed to good-class business. Apply, stating salary and usual particulars, to J. Selley, 142 Earl's Court Road, South Kensington, S.W.

LONDON, N.W.—Qualified Assistant (indoors), age about 23, with good Dispensing and Counter experience. Apply, T. F. Elton, 28 Endsleigh Gardens, Euston Square, N.W.

LONDON, S.E.—Qualified Assistant, accustomed to good-class Light Retail and Dispensing business, with some Photography. Please state age, height, experience, and salary required to Prebble, Chislehurst.

MAIDSTONE.—Energetic Assistant, used to a pushing Cash trade, under 25; outdoors; hours 8.30 to 8.30, closed Wednesdays at 1; no Sunday work. Please give age, height, particulars of experience, photo, and salary required, and if disengaged, to Payne, Pharmaceutical Chemist, Maidstone.

MAIDSTONE.—Junior; age about 20; outdoors; moderate hours. Apply, stating age, height, reference, photo, when disengaged, to Stonham & Son, Maidstone.

NORFOLK.—A Junior Assistant, accustomed to good-class Country trade; easy hours; no Sunday duty; knowledge of Photo trade essential. Please state age, height, references, and salary required (in- or out-doors), Sydney Count, Chemist, 17 High Street, King's Lynn.

NOTTINGHAM.—Wanted, smart qualified man for quick Store trade; live on premises preferred; state full particulars in first letter; applications not answered in 3 days declined. Hunts Cash Chemists, Ltd., Netherfield, Nottingham.

OLDHAM.—Wanted, at once, Junior Assistant; medium-class trade. State full particulars, salary expected (outdoors), references, etc., to Walters & Buckley, Wholesale and Retail Chemists, 4 Barker Street, Oldham.

OXFORD.—Junior or Improver, at once, good Counterman, for first-class Family Chemist's business; outdoors. Apply, stating age, height, salary required, send photo, to "Manager," Oxford Drug Co., Ltd., Oxford.

PAIGNTON (South Devon).—Wanted, about third week in February, an Assistant (indoors); aged 20 to 22; must have had Dispensing experience. State salary required, G. Sherriff, 19 Victoria Street, Paignton.

PARIS.—At once, gentlemanly Assistant, aged about 24, with Continental experience and a knowledge of French. For particulars apply, Roberts & Co., 76 New Bond Street, W.

S.E.—Smart qualified Manager wanted for quick Store business; applicant must be accustomed to Store business, married, and live on the premises; references for past 5 years required; good terms given; aged 30 to 35; smart Junior also wanted immediately; fresh from apprenticeship preferred. Apply, 135/9, Office of this Paper.

SHEFFIELD.—Wanted, Junior or Improver, about 18, for high-class business; knowledge of keeping books required; outdoors; easy hours; half-holiday; no Sunday duty. State salary required, references, and full particulars, 126/8, Office of this Paper.

SHEFFIELD.—Qualified; accustomed to Agricultural trade; smart, energetic, not afraid of work; half-holiday weekly, no Sunday duty; immediate. Apply, stating salary, experience, age, and full particulars, H. G. Williams, 118 The Moor, Sheffield.

SOUTH SHIELDS.—Wanted, smart Assistant; used to Store trade; must be good Window-dresser and well up in Photographic department. References, etc., to Mason & Co., Ltd., Cash Chemists, 80 King Street, South Shields.

STAFFS.—Young lady, experienced, wanted; capable of taking charge of a small Light Retail business and putting up Wholesale orders, mostly Proprietaries; a neat writer and some knowledge of bookkeeping desirable; state age, height, references, and experience; enclose recent photo. Apply, 133/35, Office of this Paper.

STAMFORD.—Wanted, Junior Assistant; good Dispenser and Counterman, with knowledge of Photography; outdoors. Apply, stating age, reference, salary required, when at liberty, enclosing photo, F. Dickinson, St. Mary's Street, Stamford.

STROUD (Glos.).—Wanted, a Junior Assistant for Dispensing and Front Counter work in a good-class business and for Dispensing in a Doctor's Dispensary, wanted to start at once. Please give usual particulars, with salary required, S. J. Coley, Stroud.

WALSALL.—Wanted, by February 10, smart and competent Assistant (about 30) for high-class Retail and Dispensing; outdoors. Full particulars, with photo (to be returned), to H. D. Hayward, Ash Place, Bloxwich, Walsall.

WANTAGE.—Wanted, at once, good Assistant for Country Retail and Doctor's Dispensing; must be unmarried, quick Dispenser, and thoroughly trustworthy and reliable; permanency to suitable man. Apply, with usual particulars and references, to Clegg & Son, Chemists, Wantage.

WELLS (SOM.).—Wanted, a good gentlemanly Junior Assistant; indoors. Send full particulars, age, height, references, salary required, photograph (which will be returned), E. J. Wilson, 27 High Street, Wells, Somerset.

ASSISTANT wanted; qualified; about 25; one capable of managing suburban business; partial board, sleep out; state salary. Apply, 134/22, Office of this Paper.

AT once, in high-class Dispensing business on South Coast, a Second Assistant; outdoors; age about 22; must have been accustomed to good-class Dispensing business. Apply, personally or by letter, enclosing photo and full particulars of experience, salary, and references, to "A. S. P." Messrs. Maw, Son & Sons, 7-12 Aldersgate Street, E.C.

COMPETENT Assistant for Branch in colliery district; Welsh-speaking; permanency to suitable man; abstainer preferred. Apply, giving full particulars, with photo (to be returned), "Cymro" (133/2), Office of this Paper.

DISPENSER.—Lady holding Minor qualification required, at once, by Medical man in the country; work not heavy, hours good. Apply, with full particulars of experience, etc., to Raimes, Clark & Co., 17 Smith's Place, Edinburgh.

IMMEDIATELY. for a permanency, a thoroughly competent Manager (qualified); aged 26 to 30 years; married preferred; good Prescriber and able to extract Teeth, with knowledge of Optics; first-class references indispensable; salary to commence at £110 and good percentage, with house and gas included. Apply personally, or if by letter enclosing carte, to Charles Cowles, 37 Broadway, Stratford, E.

JUNIOR; outdoors; one just finished Apprenticeship; Senior and porters kept; time for study, hours being short, with weekly half-holiday. Full particulars of experience, salary required, and photograph if convenient, H. R. Maynard, Horncastle, Lincs.

MANAGER-ASSISTANT (qualified) for good-class suburban business; knowledge of Optics preferred; weekly half-holiday, no Sunday duty; salary (including commission) about £120, but capable of increase, with rooms, gas, etc. Apply, with full particulars, to 135, 21, Office of this Paper.

MANAGER.—Wanted, a Manager for Branch; middle-class trade; must be energetic, reliable, and sober; if Extractor preferred; comfortable modern house; salary and commission given. Apply, giving full particulars, to J. Shaw, 304 London Road, Thornton Heath.

QUALIFIED Manager for high-class Store Business in the West-end; thoroughly experienced and good organiser. Apply, by letter, to "X. Y. Z." (131/14), Office of this Paper.

THE Government of Ceylon require a Science Master for the Royal College, Colombo, to teach Chemistry and Physics for London University Pass Examinations, including the Inter. B.Sc.; salary £350, rising to £450 by annual increments of £25, subject to deduction of 4 per cent. as contribution to pensions of widows and orphans of Government officers; free passage to colony; post pensionable; candidates should be between 24 and 35, honours graduates in Science of a University of the United Kingdom, with not less than 3 years' teaching experience. Applications should be sent before February 15 to the Assistant Private Secretary, Colonial Office, S.W., and envelopes should be marked with the name of the post applied for; copies only of testimonials (not more than 6).

TO Lady Dispensers.—First-class Tuition for exams; private lessons; evening classes; references to old students holding public appointments; connected with best agency in town for assisting students to obtain posts. School of Pharmacy, 26 Dorset Street, W.

IMPORTANT to Assistants.—5s. 6d.; bedroom, and use of sitting-room, dining-room, billiard-room, 10-ft. table; piano; bath (h. and o.); tennis; board as required. Mrs. Hosier, 36 Fitzroy Square, London, W.

WHOLESALE.

ADVERTISING.—Assistant required by large firm of Wholesale Chemists to prepare advertisements and printed matter suitable for the Medical profession and trade. Send details of experience, age, and salary required, with specimens of work, to "A. B. C." (97/74), Office of this Paper.

A WELL-ESTABLISHED Company offer tactful, energetic man exceptional terms for spare-time employment; inquiries invited. Write, 130/25, Office of this Paper.

EXPERIENCED Traveller required, by London and Wholesale Druggist, to call on Medical men and Chemists; South of England or Midlands. Write, with full particulars, 95/28, Office of this Paper.

SMART Representative required to canvass Chemists, etc.; qualification not essential, but an all-round knowledge of the trade desirable; must be a keen and active worker, thoroughly up to date in his methods, and a good Salesman. Apply, by letter, stating age, experience, and salary required, to "Sorva" (136/20), Office of this Paper.

TRAVELLER wanted by firm of Toilet-soap Manufacturers; must have had previous experience in own name Soaps and Perfumery; salary, travelling expenses, and commission; only men with excellent references and thoroughly good connection need apply. "T. W." (78/78), Office of this Paper.

WANTED, Travellers for our Synthetic Perfumes, calling on Chemists, Soap Manufacturers, Confectioners, etc., on commission. Elbé Frères, Ltd., Queen Anne's Chambers, Westminster, S.W.

SITUATIONS WANTED.

1s. for 12 words or less; 6d. for every 10 words beyond, prepaid.

RETAIL.

ENGAGEMENT during day until 6 p.m. "Qualified," 413 East India Road, Poplar.

LADY Dispenser; qualified; Locum, permanency; experienced. "B.," 24 Eastwood Road, Ilford, E.

PART-TIME; Mondays, Tuesdays, Fridays, and Saturdays; qualified. Burton, 67a Queen's Road, Battersea, S.W.

JUNIOR (19), tall, seeks situation in good Dispensing business; disengaged February 1. E. Andrews, Hawkstone, Rhyl.

IMPROVER; 18; 3 years' apprenticeship; good Counter experience; Photography; disengaged; height 5 ft. 8 in.; large town preferred. Moore, Gregory Street, Ilkeston.

BRANCH or Assistant; 24; married; unqualified; abstainer; good Extractor, Prescriber, Store trade, etc.; 8 years present situation; permanency. W. G. Lonergan, 273 Victoria Dock Road, London, E.

QUALIFIED; 24; good experience and references. 130/19, Office of this Paper.

QUALIFIED; experienced; outdoors. W. Howell, 113 Plashet Grove, East Ham, E.

FRENCH Student; 24; situation, Chemist or Druggist. Masteau, 40 Pembroke Road, W.

DISPENSER to Doctor; good references; married. "S. S.," 175 Kennington Road, S.E.

ASSISTANT Lady Chemist, in good-class Pharmacy. Rennie, Forest Road, Moseley, Birmingham.

QUALIFIED; 28; good experience and references; London, S.W. preferred. 129/8, Office of this Paper.

ASSISTANT; disengaged February 4th; good experience; unqualified; 32. "Beta," 19 Wood Street, Swindon.

QUALIFIED; 27; tall; disengaged; Manager or Assistant; experienced. Davies, Tyewrdd, Llwynhendy, Llanelly.

ENERGETIC worker, experienced Assistant; Manager or Part-time. "Mistura," 35 Bournevale Road, Streatham, S.W.

ASSISTANT; unqualified; experienced Dispensing, Prescribing; disengaged. Morris, 80 Corporation Street, Stratford, E.

QUALIFIED Dispenser seeks post; capable, experienced woman; Stockmaker. "Felice," c/o Mrs. Russell, 218 Kilburn Lane, W.

JUNIOR (19), tall, seeks situation in good Dispensing business; Leeds or district preferred. "G. B.," 25 St. John's Grove, Leeds.

BOLTON (or Near).—Minor Student desires Dispensing, one or two nights weekly; services free. "W. R.," 478 Halliwell Road, Bolton.

YOUNG man, tall, passed Preliminary, wants a situation with good Dispensing Chemist; services free. Beaumont, Kirkby-in-Ashfield.

SENIOR or Manager; 14 years' good varied experience; aged 28; qualified; permanency desired. Hoadley, 36 Agate Road, Hammersmith, W.

QUALIFIED; 22; good Dispensing and Photographic experience; Manchester or district preferred. Coates, Kilgrimol School, St. Anne's-on-Sea.

A S Branch Manager or Locum; long varied experience; energetic, trustworthy; well recommended; aged 45. "Statim," 7 Charlwood Road, Putney, W.

ASSISTANT; 36; unqualified; outdoors; good Counterman; City and suburban experience; good references; disengaged. Apply, 131/1, Office of this Paper.

UNQUALIFIED; 23; abstainer; Dispensing, Counter, Photography, Extractor; Hospital experience; outdoors. "Rhel," 74 Western Road, Ealing, W.

ASSISTANT (22), 5 ft. 7 in., unqualified, 2½ years' London experience, requires situation; good-class Dispensing. "Reliable" (127/37), Office of this Paper.

ASSISTANT or Branch; unqualified; outdoors; Extractor; Photography, etc.; disengaged beginning of February. Davies, 8 Temple Street, Swansea (late Mr. N. M. Grose).

UNQUALIFIED; 30; married; provincial and London experience; disengaged one month; over 6 years in present London berth; accustomed to taking charge. 128/28, Office of this Paper.

BRANCH Manager or Assistant; unqualified; Photographic; London and South Coast experience; excellent testimonials; disengaged. Reynolds, Lower Swell, Stow-on-the-Wold.

QUALIFIED; 29; outdoors; unmarried; abstainer; 15 years' experience; good Salesman, Dispenser; Photography, Optics; highest references; experienced Manager. Thirde, 597 Springburn Road, Glasgow.

ASSISTANT; unqualified; 26; disengaged about February 20; Dispensing, Photographic, and Counter experience; good references; outdoors; London or South district preferred. Campbell, The Pharmacy, Parkstone, Dorset.

QUALIFIED Chemist and Optician (Sight-testing examination); 28; tall; abstainer; practical Photographer; 15 years' excellent experience, 6 years in working up branches; outdoors or house. Tugwell, 12 Benthall Road, Stoke Newington.

A MINOR Student seeks permanent situation (outdoors) in high-class Pharmacy, Birmingham or Midlands preferred, but not essential, at once, or could wait a month; excellent references; good Dispensing experience. "Aloin" (128/35), Office of this Paper.

SITUATIONS WANTED—cont.

RETAIL—continued.

EXPERIENCED, qualified Dispenser-Bookkeeper; disengaged. 133/22, Office of this Paper.

QUALIFIED; Senior or Manager; 28; 5 ft. 11 in.; Photography. 133/20, Office of this Paper.

ASSISTANT; 25; disengaged; good experience and references. "Rhei" (132/31), Office of this Paper.

DISPENSER-BOOKKEEPER (lady); Minor; testimonials; experienced. "G." 86 Balham Park Road, S.W.

LADY; qualified; experienced; Doctor or Institution; Bookkeeping. "C." 53 Torrington Road, Thornton Heath.

ASSISTANT; unqualified; good experience; 29; first-class references; permanency. 131/24, Office of this Paper.

MANAGER; qualified; experienced Prescriber; Optics; good reference. "Ready" (133/14), Office of this Paper.

LOCUM; 30; qualified; exceptional all-round experience; reliable. "Pharmacies," 1 Stoney Stanton Road, Coventry.

JUNIOR; 20; used to Dispensing and Photographic business; disengaged January 25. Clark, Regent Street, Smethwick.

QUALIFIED; 23; first-class Dispenser; West-end experience; moderate salary; immediate. 132/7, Office of this Paper.

PART-TIME or Locum; smart Manager, Extractor, etc.; aged 30. "Acetum," 2 New London Street, Fenchurch Street, E.C.

ASSISTANT; 29; outdoors; height 5 ft. 10 in.; good Dispenser; about February 7. "Aspirin," 8 Grinwade Street, Ipswich.

MANAGER; qualified; 35; married; Photography; Prescribing; Extractor. "Druggist," 249 Portland Road, South Norwood.

QUALIFIED; Senior; Dispensing, Photography, Counter; 24; first-class references; Midlands preferred. 132/32, Office of this Paper.

QUALIFIED; 27; Dispensing; Counter; Photography; modern first-class all-round experience; references. "Minor" (133/29), Office of this Paper.

UNQUALIFIED (27) desires situation; Wigan or Bolton districts preferred; 9 years' experience. "Alpha" (132/26), Office of this Paper.

ASSISTANT; disengaged; 24; unqualified; 7 years' experience; outdoors; medium height; excellent references. Apply, 131/23, Office of this Paper.

LADY Dispenser (Apothecaries' Hall certificate), Bookkeeping, desires post with Doctor or Institution. Yeomans, 38 Preston Avenue, Newport, Mon.

PART-TIME; 22; morning and afternoon; West-end experience. Photography; in London. "X. Y. Z.," 2 Bradford Terrace, Harrow View, Wealdstone.

QUALIFIED; 27; Assistant or Manager; 11 years' experience; excellent references. State salary (outdoors), Owen, Llysifor, Llandudno Junction, Conway.

MANAGER; qualified; outdoors; W. or S.W. district; experienced Chemist, up-to-date Pharmacist, and Photographer; cash security. "Major" (132/10), Office of this Paper.

ASSISTANT or Branch; 29; 12 years' experience; disengaged; good Window-dresser, Stockkeeper, and Counterman; steady and reliable. "V.," c/o Harker, 176 Elmhurst Mansions, Clapham.

QUALIFIED; 23; height 5 ft. 9½ in.; good all-round town and country experience, also good Photographic; excellent testimonials; disengaged. G. Waddington, South Crosland, Huddersfield.

QUALIFIED; Manager; permanent; moderate salary and house; middle-aged; Prescriber, Dispenser; Photography; Extractor; references. Jinks, Ironbridge, Black Tredegar, Southalls, Birmingham.

As unqualified.—Assistant, with view to purchase; aged 30; good appearance; used to either West-end, Suburban, Agricultural, or Shipping; Dispensing business preferred; first-class references; at liberty now. 131/31, Office of this Paper.

QUALIFIED; 25; West-end and provincial experience. Gregory, Beacon Hill Road, Newark.

ASSISTANT; unqualified; good experience; town or country. Wood, The Plain, Thornbury, Glos.

PART-TIME; evenings, etc.; Manchester district; qualified. Morison, Moorside Road, Heaton Moor.

QUALIFIED; 5½ years' good experience; excellent references; disengaged. A. Tidy, Middleton, Tamworth.

EVENING, Dispensing or otherwise, from 6 o'clock; experienced. "Sodium," 4 Cobham Road, Kingston-on-Thames.

ASSISTANT; unqualified; 33; accustomed to manage branch. Apply, "Chemicus," Giggleswick, Settle, Yorks.

STUDENT wishes Part-time; experienced Counterman; excellent reference. "Veritas," 13 Atherfold Road, Clapham.

QUALIFIED; 23; Photography, Counter; excellent Dispensing experience and references. Sherwin, Chemist, York.

JUNIOR; 17½; indoors; no wages; wants experience; 3 years' apprenticeship. Braddock, Albion Road, Willenhall.

LADY Dispenser (disengaged) seeks post; experienced; qualified; references. Apply, Miss Duncan, West Bere, Sturry, Kent.

ASSISTANT; 26; good Dispensing experience; Extractor; permanency; disengaged 31st. "T.," 57 Broad Street, Lyme Regis.

JUNIOR; unqualified; outdoors; excellent references; disengaged. Bazley, 8 Reginald Villas, Hamstels Road, Southchurch, South-end.

QUALIFIED Lady Dispenser desires post; Chemist, Doctor, or Institution; experienced. "R. P.," 52 Elgin Avenue, Maida Vale, W.

BRANCH Manager or Assistant; qualified; aged 31; married; highest references; permanency; experienced. Judge, 57 Bid-dulph Street, Leicester.

UNQUALIFIED; good experience, Counter, Dispensing, Photography; disengaged; outdoors. Wood, Laburnum Cottage, Westcott, near Dorking.

CITY or West-end; smart Junior; 23; 6 years' experience, Counter, Dispensing, Photographic; speaks French fluently. V. Drisse, Granville House, Maidstone.

ASSISTANT or Manager; unqualified; 25; abstainer; thoroughly businesslike, courteous, and obliging. "Ithei," c/o Nash & Sons, High Street, Grays, Essex.

QUALIFIED (29) requires berth in country town, with prospects of succession; excellent experience and references. "Pharmacist," 36 Agate Road, Hammersmith.

ASSISTANT; exceptional Photographic experience; liberty February 17; Prescriber and Dispenser; 16 years' good references. Blackley, 6 Bedford Street, Gloucester.

QUALIFIED; Branch Manager, Dispensing, or Counter; 25; London or provinces; good experience and references. "Statim," 51 Atherfold Road, Clapham, S.W.

DISENGAGED; 32; experienced Counterman, Dispenser, Prescriber, Extractor, Photography, Window-dresser. "Unqualified," 12 Queen's Terrace, Campbell Street, Hull.

QUALIFIED; Manager or Assistant; first-class experience, Dispensing, Counter, Photography; Manchester district preferred. Ailis, 20 Palm Street, Longsight, Manchester.

JUNIOR (unqualified) seeks situation in London; outdoors; 24; good Dispensing, Counter, and knowledge of Photography. "Statim," 5 Highwood House, Great Portland Street, W.

JUNIOR, tall, 3 years' apprenticeship, seeks situation in good-class Dispensing business about middle February; North preferred. Copeand, 147 Holdenhurst Road, Bournemouth.

UNQUALIFIED, energetic Assistant; 12 years' London and Provincial Dispensing, Counter, Photographic, and General Stores experience; 35. "Statim," 22 St. Leonard's Road, Horfield, Bristol.

QUALIFIED; Senior or Manager; 24; tall; good-class Retail and Dispensing; Photography; 9 years' experience; 4 years last situation; good references. Royston, 7 Manchester Road, Acering-ton.

QUALIFIED, as Manager in good-class business; good all-round West-end and provincial experience; smart, up to date, and of good address; in or near London preferred; good security and agreement if necessary; view to succession or investment entertained. Apply, "M.P.S." (130/34), Office of this Paper.

LOCUM; qualified; experienced. "Chemist," 109 Fentiman Road, S.W.

MINOR, energetic, experienced, tall, wants post. Martin, 36 Park Road, Battersea.

JUNIOR or Improver; 21; 4 years' Dispensing experience. Metcalf, Brandesburton, Hull.

LOCUM or Manager; qualified; 28; experienced. Quinn, 35 Gnilford Road, Stockwell, S.E.

DISPENSER; good experience; disengaged the 25th inst. "H.," 15a Yukon Road, Balham, S.W.

HELP to Chemist or Dispenser to Doctor; from 5s. "J. W. H.," 28 Aldebert Terrace, Lambeth.

MANAGER; view succession; easy terms; experienced; energetic. "Reliable," 13 Tulse Hill, S.E.

LOCUM or Manager; disengaged; qualified; experienced; reliable. The Gables, Vener Road, Sydenham.

PART-TIME or Locum; reliable and thoroughly recommended. "Rhei," 105 Cornwall Road, Brixton.

PART-TIME or Assistant; unqualified; Optics; Photography. "E. C. H.," 19 Osborne Road, Leyton.

QUALIFIED, experienced, as Branch Manager or Assistant; good references. 82 Stroud Green Road, N.

QUALIFIED; 25; Part-time, Tuesdays, Wednesdays, Fridays. Clement, 115 Camberwell New Road, S.E.

UNQUALIFIED; 27; Dispensing, Counter, Photography; disengaged. Lewis, 272 Gray's Inn Road, W.C.

IMPROVER (19), 5 ft. 9 in., disengaged, Photography, seeks permanency. Goulden, 89 High Street, Barnet.

OUTDOORS; smart Salesman; Dispenser; good experience. "Bookkeeper," 193 Scott Ellis Gardens, N.W.

MANAGER, Senior, or Locum; disengaged; first-class experience; Photography. "G.," 23 Elms Avenue, Eastbourne.

QUALIFIED; Senior; 25; Dispensing and Photography; first-class experience. B. King, Bromham, Chippenham.

QUALIFIED (21) desires engagement in or near Newcastle. Apply, Rickard, 160 Malcolm Street, Heaton, Newcastle-on-Tyne.

UNQUALIFIED; 34; height 6 ft.; thoroughly experienced; good references; outdoors; £2 a week. 132/33, Office of this Paper.

ASSISTANT (24) requires duty, 2 or 3 evenings a week, or would Dispense for Doctor. "O.," 76 Sternhold Avenue, Streatham Hill.

ASSISTANT; 29; good Dispenser; Photographic; experienced; good references; outdoors; disengaged. 156/7, Office of this Paper.

ASSISTANT; unqualified; 25; experience and references good; outdoors; S.E. district preferred. Keen, 27 Kemerton Road, Camberwell, S.E.

ASSISTANT; unqualified; 34; height 6 ft.; good general experience and references; outdoors; £2. Michell, 122 Commercial Street, Newport, Mon.

MANAGER or Senior; outdoors; London; qualified; first-class experience; not afraid of work; disengaged. "Veronal," 193 Westbourne Grove, W.

GENTLEMANLY Assistant; 26; unqualified; tall; energetic; excellent experience and references; disengaged. J. T. Littleboy, Halsey Cross, Woking.

ASSISTANT; smart Salesman and good Dispenser; over 2 years' London experience; speaks foreign languages; good references. "Codru," 118 Farringdon Road.

UNQUALIFIED; disengaged; Dispensing, Counter, and Booking; tall; middle-aged; Prescriber; good experience. "Chemicus," 10a Eversley Road, Charlton, S.E.

MR. FRED VENABLES (23), with good experience and references in Dispensing and Counter, is qualified, and requires situation. 14 Merton Road, Wandsworth.

MODERATE terms (permanency); qualified; Manager, Assistant; single; 48; good Prescriber; energetic; disengaged. "C. H.," 74 Wells Street, Oxford Street, W.

LOCUM; qualified, excellent references; disengaged. "Caius," 8 Sedlescombe Road, Fulham, S.W.

LOCUM or Manager; qualified; disengaged; Northern Counties preferred. 30 Howick Street, Alnwick.

EVENING engagements; qualified; good Dispensing and Counter. "Codex," 36 Agate Road, Hammersmith.

MANAGER or Temporary Assistant; qualified; disengaged. "Chemist," 3 Dook Road, Tilbury, Essex.

JUNIOR; unqualified; 6 years' London Store experience; excellent references; disengaged. 135/13, Office of this Paper.

ASSISTANT, tall, best experience, desires good situation; whole or part time; outdoors. Haigh, Helme Leigh, Meltham, Huddersfield.

ASSISTANT or Manager; Extractor; present berth 4 years as manager; married; permanent. Apply, "Salol" (136/14), Office of this Paper.

UNQUALIFIED; outdoors; 26; good Counterman, Dispensing, Photographic; Window-dresser; about February 10; country. "A. B." (136/17), Office of this Paper.

IMPROVER seeks situation, London district preferred, in good-class; highest references; disengaged 29th inst.; 4 years' experience. Evans, 70 Warwick Road, Kensington.

YOUNG lady requires situation in Photo department; used to Counter and Packing; 24 years in last place; excellent references. "P.," 12 Wren Road, Camberwell, S.E.

ASSISTANT; 24; unqualified; disengaged; excellent Dispensing experience; good-class Country business preferred; short hours; outdoors. Howell, Gladstone House, Nantymoel, Glam.

EXPERIENCED gentlemanly Assistant desires permanency; outdoors; competent; trustworthy; good-class business only; excellent references, City and provincial; moderate hours; disengaged. "Reliable" (135/26), Office of this Paper.

33/-; outdoors; London; Assistant or Branch Manager; aged 35; 15 years' experience; college trained; good hand at manufacturing stock; abstainer; unqualified, but thoroughly reliable. "Chemicus," c/o Howey, 130 Parkdale Road, Plumstead.

COMPETENT, energetic business man seeks engagement as Manager, or otherwise, early in February; at present manager of branch, Lane & Foot, 195 Seven Sisters Road, Finsbury Park, N.; satisfactory reference. Forster, address as above.

ASSISTANT; over 6 years' all-round experience; good Counter hand; practical Dentistry, Photography (Enlarging, etc.), Optics; aged 23 years; abstainer; near London preferred; outdoors; salary to commence 35s. per week. Address, 136/31, Office of this Paper.

QUALIFIED Assistant, excellent experience, aged 28, wishes situation of trust or interest; experience extends to first-class West-end and Continental houses, speaking French, and well conversant with Continental and American Pharmacy; would entertain situation as Representative, Manager, or in Export Wholesale. "Woodcock" (135/23), Office of this Paper.

WHOLESALE.

TRAVELLER desires re-engagement with good Drug house. 134/19, Office of this Paper.

TRAVELLER; young; London and suburbs; easy terms; highest references. "R." (132/5), Office of this Paper.

WHOLESALE; 10 years' Wholesale and Retail experience; good references; aged 29. 133/24, Office of this Paper.

TRAVELLER open for engagement, Aberdeen and the North; or would take Agencies. Apply, 135/22, Office of this Paper.

SITUATION wanted; Wet Counter or Export hand; aged 28; wages moderate; 12 years' experience. 136/4, Office of this Paper.

MAN, young, reliable, wants situation in Wholesale Laboratory, Hospital, or any other institution. 135/28, Office of this Paper.

QUALIFIED Assistant (28) desires post in Manufacturing Warehouse; Manchester district preferred. "Fremil" (130/24), Office of this Paper.

CHEMICAL Houses.—Advertiser, with sound connection, open to Represent good firm; highest references. Address, "K.," 158 High Road, Lee, S.E.

SITUATIONS WANTED—cont.

WHOLESALE—continued.

YOUNG man seeks situation in Wholesale; 7 years' experience, Packing and Stockkeeping; good references. Fogden, 54 Katherine Road, East Ham.

GENTLEMAN, with good experience and connection as Drug Traveller in Africa, wishes engagement with a good house. "D." (130/7), Office of this Paper.

CHEMIST, with good knowledge Organic Chemistry, seeks post, Laboratory, Works; special experience (6 years) Essences, Sugars, Organic Acids, Agricultural products; capable Analyst; good references. 132/21, Office of this Paper.

GENTLEMAN (aged 25), smart, energetic, sound, up-to-date, town and country Retail experience, desires position as Representative; highest references as to character and ability; London preferred. "Codeia" (129/12), Office of this Paper.

SCOTCH Representative, Interviewer, or position of trust; young, energetic; good record; well known to trade and Medicals; qualified Chemist; good firm or agency; can bring business. "Chemist," Ellabank, Polmont Station, Stirlingshire.

J. DENTON, Plumpton Street, Wakefield, desires to Represent firm of good repute along with another house; lines must be capable of bringing in £3 to £5 weekly commission; knows Drug trade thoroughly; has had 10 years' travelling experiences North of England.

CHEMIST'S Assistant (27) seeks situation as outdoor Representative; thorough knowledge of Drug, Sundries, and Photographic trade; smart appearance and energetic; excellent references; disengaged; photo if required. "Statim," Ampney House, Victoria Terrace, Herne Bay.

TRAVELLER desires engagement; Salesman, with proved record and wide experience of road; can influence business; energetic, earnest worker and reliable man; highest references; qualified Chemist; familiar all branches Drug and allied trades. "Exper" (134/9), Office of this Paper.

QUALIFIED Chemist (34), married, highly experienced by holding responsible positions in both Wholesale and Retail houses, and in touch with the best sources of supply, is desirous of obtaining post as buyer for multiple Chemists' shops or similar Chemists' societies; Manager's post in good business would be entertained; disengaged shortly. Reply, "Confidence" (132/38), Office of this Paper.

MISCELLANEOUS.

NOTE.—Replies can be addressed to this Office and forwarded to the Advertiser for an additional charge of 6d.

MACADAM & TUCKNISS, Sharedealers, 30 Tranquil Vale, Blackheath, London, S.E. Telephone 81 Lee Green.

SHARES FOR SALE (free of commission, subject).—50 Boots Southern Preference shares, 23s. 6d.; 200 Camwal Ordinary, 4s. 4½d.; 30 Castner Kellner, 26s. 9d.; 50 Edward Cook Preference, £6 15s.; 5 Dental Manufacturing (£4 10s. paid), £5 4s. 6d.; 150 Iford Preference, 11s. 10½d.; 100 J. Knight Ordinary, 20s. 10½d.; 100 Bengers Ordinary, 26s.

WANTED (subject).—50 Bleasdales, 82s. 6d.; 100 Camwal Preference, 9s.; 50 Dental Manufacturing (£4 10s. paid), £5 1s. 3d.; 10 Virol, 5s. 7½d.; 100 Idris "A" Preference 12s. 6d., 100 "A" Ordinary 10s. 6d.; 100 G. B. Kent Preference, 15s. 4½d.

Share list free. Bankers: London and County.

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to know how to increase your turnover and your profits too. If so learn to test sight and add Optics to your business as a side-line, which has been proved to be the most profitable a chemist can have. My Correspondence Course in Optics and Sight-testing will help you. Write for particulars.

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Practising
Optician,
BLOXWICH.

CHEMISTS' SHOP-FITTINGS (SECOND-HAND).—Ranges mahogany drawers, with bevelled-edge glass labels and cut-glass knobs, shelving above, lockers below; mahogany dispensing-screens, counters with glass-cass fronts, wall-cases, bent-front and flat-top counter-cases, counter-desks, tooth-brush cases, complete shop-rundds, etc.; every requisite for chemists; extensive stock to select from at extremely low prices; practical men sent to all parts; illustrated catalogues and estimates free. **MATTHEWS, CHEMISTS' FITTER**, 14 and 16 MANCHESTER STREET, LIVERPOOL.

SECOND-HAND CHEMIST'S FITTINGS.—We have an exceptionally fine selection of these in all sizes; prices are right and goods are in first-class condition; we shall be pleased to supply particulars and prices. Call or write, **RUDDUCK & CO.**, 262 OLD STREET, LONDON, E.C.

BARGAINS (Second-hand).—Ready for immediate despatch, 14 screens, 25 wall-cases, 40 counters, 50 counter-cases, 2,000 drug-drawers, etc.; also complete fittings for shop comprising 10-ft. drug-fitting, with glass labels and knobs; 6-ft. top and bottom wall-case; screen and counter, with plate-glass mirror centre; serving-counter, plate-glass counter-case, perfume-case, and desk and counter-drawers; price £30 the lot. **PHILIP JOSEPHS & SONS, LTD.**, 93 Old Street, London, E.C.

SHOP-FITTINGS. SECOND-HAND FIXTURES.—Chemists requiring additional fittings or opening new premises would find it to their advantage to write us for particulars and photographs; we have a large assortment of second-hand fittings at rock-bottom prices. **WALTER KNOWLES & CO.**, 83 VICTORIA STREET, LIVERPOOL.

CHEMIST'S Second-hand Fittings, to clear owing to extension of premises; room wanted; bargains; 15-ft. drug-fitting drawers, cupboard, mirror poison-cupboard, shelves, cornice, £11; 14-ft., similar, £10; 12-ft. panel-moulded serving-counter, £4 10s.; 6-ft. mahogany bent plate-glass counter-case, 97s. 6d.; cheapest house in the trade for shop-front alterations, window-enclosures; estimates free. **H. MILLS**, Up-to-date Chemists, Shop Fitter, Shop-front Builder, Steam Works, 163-5 Old Street, E.C.

NEWWEY'S HANDBILLS

are money-makers. They bring more grist to the mill, more customers to your shop, more profit to your till; and the price places them within easy reach of everybody. Now is the time to advertise your winter goods, and Newwey's Handbills will help you. Send a postcard for samples.

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THE CHEMISTS' DICTIONARY OF MEDICAL TERMS AND TREATMENT is the latest C. & D. book. Tells you quickly what you want to know. Price 2s. 6d., or by post 2s. 8d., from the C. & D. Offices, 42 Cannon Street, London, E.C.; may also be obtained from the leading Wholesale houses; put down a copy in your next order.

MAY I call and see you, [with view to increasing your Business? If you pay my fee for one year, interview free; otherwise 10s. 6d.]

MAY I ask you to send for free booklet and the references, then make an appointment?

MAY I point out that 350 clients are using my proved methods to their satisfaction? **WHY NOT YOU?**

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WANTED a few more regular customers for my sale-compelling Window-tickets; my tickets are something out of the ordinary; they bring business, as dozens of my clients can testify; sample 3, 7 in. by 5 in., your own wording, effectively written, for P.O. 1s.; orders for 6 will include, free, one card, 12 in. by 9 in., in colour; this week only. "Specialist" (131/25), Office of this Paper.

SPECIAL OFFER.

WE are desirous of increasing the sale for Bailey's Celebrated Gout and Rheumatic Pills; any chemist who will exhibit for one month in his window one of our attractive Posters shall receive in return, free of all cost, half-dozen Bailey's Pills, 1s. 1½d. size; or, further, chemists who will give an order for one dozen shall receive two dozen invoiced for 9s. 6d. nett; we will advertise in your price list or almanack, supply you with handbills, showcards, etc., and assist you in every way with the sale, upon hearing from you; correspondence invited. **ENTIRE NEW MANAGEMENT.** Bailey's Pill Co., Coventry, England.

OPIMUM.—One original case very dry Druggists' Turkey Opium, slightly stuff, yields 12.8 per cent. morphine; highest offer accepted for the case; offers for broken bulk also considered. 135/20, Office of this Paper.

WANT A BUSINESS?

Then take your pick of two good ones.

No. 1. Western Scotland. Drugs and Optical. Turnover about £2,000, net profit £350; lease, everything favourable; ill-health bona-fide cause of sale. Rent low. Price £850.

No. 2. Isle of Wight. Drugs, Optical. Turnover £500, few patents, net profit £200; owner retiring from trade entirely. This business can show you how to double in twelve months. Corner position; a week's trial allowed. I would buy either above myself if I had time to attend. Cheap at £275.

BERNARD SLACK, Hill Top, West Bromwich.

Exchange Column—Bargains.

TERMS.

One halfpenny per word with name and address. One penny per word if we register the address and attach a number.

No Advertisement inserted for less than 6d.

FOR DISPOSAL.

APPARATUS.

14s. 6d. MORSTADT cachet-machine, new, 10s.; 30-gr. pessary-mould, new, 3s. "GLENBAR," Seagate Road, Hunstanton.
CHEMICAL-BALANCE, in polished case, with weights, equal to new, 37s. 6d. Write for particulars, AIRD, 45a Gardner Street, Brighton.
BALANCE, high-class, Oertling's weights, £3 10s.; microscope, 2 oculars, 1 in. and $\frac{1}{2}$ objectives, 4 doz. slides, 35s.; pill machine, 1 gr., 5s. HICKMAN, 5 Abbotts Road, Southall.

BOOKS AND PERIODICALS.

GRAY'S "Supplement," edited by Redwood; good condition, leather. Offers, ROBERTS, 76 Kensington Park Road, W.
WHAT cash offers for "C. & D." for 1908, give Diary? Can be posted on Saturday night. "E. C.," 109 Egerton Road, Blackpool.
"PHARMACEUTICAL FORMULAS," ("C. & D."), 2s. 6d.; "History of Vegetable Kingdom" (Rhind), with plates, 5s.; "Principles and Practice Medicine" (Osler), 10s.; "Encyclopædia of Chemistry as Applied to Arts and Manufactures," in 2 large vols. (Mackenzie), 20s.; Hooker's "Flora British Isles," 4s.; Bentley's "Botany," 5s.; "Manual Chemistry" (Fownes), old, 2s.; "Materia Medica" (Headland), old, 2s. 6d.; "Selete Prescriber," 2s.; "Elementary Chemistry" (Roscoe), 1s.; Pereira's "Materia Medica," in 3 vols., 30s. "W.," 178 High Street, Lewes.

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ODEINE, pure, 7½ oz., 11s. oz.; phosphate, 10 oz., 8s. 6d. oz.; post free on receipt of postal order. J. CLEWORTH, Chemist, Manchester.
VERSTOCKED.—10 lb. chlorodyne, 2s. 1b., part or whole, cash or exchange; also 4 oz. santoline at 1s. oz. PRATT, 1 Westgate, Cleckheaton.
LYCERIN (1.260) for sale, owt. drum, best offer accepted; will exchange for 1s. Vitadatin, or salable patents. FURNESS, Chemist, Accrington.

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INFLUENZA mixture; novel formulæ; very effective; pleasant taste; nice appearance; 7vij. costs 1½d., formulæ 1s. BOWMAN, 36 Church Street, Woolwich.

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104 PAIRS spectacles and folders, to retail 9d. to 4s. 3d., in good condition; cost £6 10s., price 30s. to clear. T. T. RENNIE, 32 Seagate, Dundee.
ROSS large and powerful microscope, mechanical stage, 2 eye-pieces, 1. $\frac{1}{2}$, $\frac{1}{4}$ -in. objectives, accessories and slides, in large mahogany cabinet, £12, cost £25. HARFORD, Chemist, Hockley, Birmingham.

PROPRIETARY ARTICLES.

LUNG-BELLS, 21s. each, carr. paid, in perfect condition. 133/6, Office of this Paper.
THERMOS flasks, surplus stock of pint size, 21s. price-protected, nickel 15s., leather 12s., net cash. 117/41, Office of this Paper.
OFFERS. 3 doz. 5ij., 3 doz. 5iv. Extractum Carnis, packed by Armour's; 4 doz. Dr. Weir's porous plasters. 126/12, Office of this Paper.
3 HEARNE'S bronchitis cure, 2s. 9d.; 4 Byno glycerophosphatis, 2s. 6d.; 3 ditto, 4s. 6d.; 1 Cuticura Resolvent, 4s. 6d.; clean, half retail cash. FLETCHER, Chemist, Dursley.

SHARES.

SHARES for sale. See p. 260.
OFFERS wanted, Camwal £50 debenture share. 95/21, Office of this Paper.

SHOP FITTINGS.

SHOP-ROUNDS, 71 gold labelled, various; 8 30-oz. syrup bottles; 7 recess ungt. jars; perfect condition; bargain, £2 10s. 43 St. Ann's Road, Harrow.
TWO small Gledhill's, one O'Brien's, one Loft's cash-tills, in perfect order; large quantity O'Brien's, Gledhill's till-rolls, cheap. 61 Claude Road, Cardiff.

MISCELLANEOUS.

NEW O'Brien till, much below cost; also few 30-oz. syphons, buyer's name could be put on. 134/101, Office of this Paper.
DENTAL chair, mahogany frame, green maroon, condition as new. Apply, "ESTATE AGENT," 11 Beadon Road, Hammersmith Broadway.
TYPEWRITER, Keystone, in good working condition, price £3; or exchange for good student's microscope. HANKINSON, Chemist, Grange-over-Sands.

WANTED.

2-OZ. 1s. Virol, clean. Price to HORNIMLOW, Chemist, Worcester.
SMALL outside red lamp (gas), cheap. 37 York Road, Battersea.
OPTICAL trial-case, dental show-case, specimens, forceps. LEWIS, Medical Hall, Newport.
MINOR books, chemists' books, for cash or exchange. GOWER, Bookseller, Waterloo, Liverpool.
DISPENSING-SCALES and check-till. Lowest price, 6 Bordesley Green Road, Birmingham.
COLLAPSIBLE tube-filling machine, any type, cheap. "TOILET," 15 Frant Road, Thornton Heath.
THOMPSON'S optical tables and data. State price and edition, Davis, 26 Byrne Road, Lewisham.
ABOUT a gross second-hand syphons, surplus stock, and sundries. Send particulars to 134/11, Office of this Paper.
1N good condition, empty oil lemon coppers. Particulars as to price and quantity to be sent to 91/41, Office of this Paper.
CASH register, up to date; cash after few days' satisfactory trial; will deposit cash with C. & D. 136/5, Office of this Paper.
DISPENSING-BALANCE, best make and condition; chemical balance and weights for rough work. WILCOCKSON, Hincley.
"BRITISH PHARMACOPŒIA," '98, Atfield's "Chemistry," Ince's "Latin Grammar of Pharmacy." Lowest cash prices to "STUDENT" (136/6), Office of this Paper.
TINCTURE-PRESS, second-hand, large size; state lowest price; or would exchange cyclostyle duplicator, in perfect condition, hardly used, cost £10. 90/40, Office of this Paper.
"CHEMIST AND DRUGGIST," years 1859 to 1870, also 1864 separate, or complete set from 1859 to date; also Chemical Society Journals, "Soc. Chem. Industry," "Analyst," and "Chemical News"; offers. 111/22, Office of this Paper.

THURSDAY'S NEWS.

Legal and General.

PROSECUTION BY BEECHAMS.—On Wednesday, January 22, at the North London Sessions, before Mr. Loveland-Loveland, Mr. Herbert William Wilson Northwood, trading as Mabyn & Co., 1 King David Lane, Shadwell, E., was indicted for having unlawfully and with intent to defraud applied a certain false trade-description—to wit, Beecham's pills—to three dozen packets of pills sold to a Mrs. Fanny Palmer, such trade-description being so applied by means of labels attached to each packet, contrary to the provisions of the Merchandise-marks Act, 1887. Mr. E. D. Purcell, instructed by Mr. Lewis Margetts, appeared for the prosecution, and the accused conducted his own defence.

Mr. Purcell said the prosecutor was Mr. Joseph Beecham, carrying on business as Thomas Beecham, St. Helens. The indictment was under the Merchandise Marks Act, which makes it an offence for any person to have in his possession goods to which a false trade-description is applied. The charge against the man was that he had sold pills as Beecham's pills which, in fact, were not Beecham's pills. He was a wholesale chemist and druggist who carried on business at 1 King David Lane, and traded as Mabyn & Co., and the jury would be satisfied that for a long time past he had taken advantage of the reputation of Beecham's pills to sell other pills at a price Beecham's pills are sold at. It did not matter in the least whether the pills sold were as good, or even better; the offence was in defrauding the trader or manufacturer of his profit in goods which probably had been advertised for a number of years. The offence was not an isolated one; it had been part of a system. In September last the man had been found to be doing the very thing he was now indicted for. In London a small army of inspectors are employed going round making purchases of goods to see if the genuine article is being sold, and a purchase was made by one of the prosecutor's inspectors of pills with Beecham's labels attached, which were found not to be Beecham's pills at all. When that purchase was made, the inspector, Mr. Lockwood, saw the accused, and pointed out to him that he was breaking the law, and on September 18 Northwood wrote a letter to Mr. Beecham in which he apologised for having sold in his shop as Beecham's pills an article which was not of Beecham's manufacture. He most faithfully promised not to repeat the offence, and said he had satisfied Mr. Lockwood that he was without means to pay any fine to a charity, and that he had handed to Mr. Lockwood all the spurious pills in his possession. Very soon after that date he wrote to Beecham's for circulars, etc., and something like 1,000 wrappers for Beecham's pills were sent to him on October 7. Early in December Mr. Lockwood called at the shop of a Mrs. Palmer, after sending a boy in to make a purchase. In consequence of this he arranged with Mrs. Palmer, and when defendant called for orders on December 18 Mrs. Palmer gave him an order for three dozen packets of pills. These packets were delivered on December 20. Each packet contained four pills, each had Beecham's label upon it, and was accompanied by an invoice in which the articles were described as Beecham's pills. These pills were not Beecham's at all, and were probably manufactured by the defendant himself. The next step was communication with the police; a search-warrant was obtained, and the defendant's premises were searched by Inspector Wensley.

At this point Northwood asked his Lordship if under the Act the police raid ought not to have been made in the daytime. As a matter of fact, they entered his premises at night; but the Judge pointed out that the police acted under a general search-warrant.

Counsel, continuing, said the police found a quantity of pills ready to be pasted with the labels, and while they were in the shop no fewer than four people came and asked for Beecham's pills. A conversation took place, and defendant said, "This is all I have got. These are the pills I have sold as Beecham's. Of course, they are not Beecham's. I don't sell them over the counter. I only sell the genuine ones there. I tell you this in confidence." The inspector told the defendant he was there in his official capacity. Defendant then told the police that he had been there twenty years, that the business was his, and that he traded as Mabyn & Co. The case, concluded counsel, was of considerable importance to traders generally.

Mr. John Aitken Lockwood, 85 Radburn Road, Balham, was then called, and bore out counsel's statement. The pills the boy bought were exactly similar to the three dozen he afterwards obtained from Mrs. Palmer. The labels were genuine, but the pills were spurious. Mrs. Palmer handed him the invoice, which was made out for Beecham's pills. He had seen some pills supplied to a Mr. Kirby, a provision-dealer, of Harding Street, St. George's, who handed him two boxes. In reply to the defendant, witness said he tried about

thirty shops in the East-end of London during September. The search-warrant was applied for for selling goods with a false trade-description.

Defendant: I produced a box on which it is stated the pills are Beecham's patent pills. Why did you not sue me for selling "patent" pills?

Mr. Purcell: I don't know if your Lordship thinks that is a question for this witness?

The Judge (to witness): You allow your customers to open the boxes and sell the pills in wrappers?

Witness: Yes, my Lord.

Mrs. Fanny Mary Ann Palmer, 47 Sherwood Street, Devon's Road, Bow, repeated her evidence given at the Thames Police Court, as reported in the *C. & D.* of January 11. She was cross-examined by the defendant as to her dealings with other firms. When she received the three dozen boxes she put them on a shelf until they were handed to Mr. Lockwood. No one else had ever offered to sell her imitations of Beecham's pills.

Detective-Inspector Wensley next gave evidence as to his search of the defendant's premises. He found a tin which contained $\frac{3}{4}$ lb. of aperient pills, and also forty-two real Beecham's pills. In reply to defendant, the inspector said his visit was made at 9 p.m. Defendant objected that under the Merchandise-marks Act the police were only authorised to search in the daytime.

His Lordship: He was not there under the Merchandise-marks Act; the search-warrant was a general warrant.

Detective-Sergeant Dessent corroborated the inspector's evidence.

Mr. John Kirby, provision-dealer, Harding Street, St. George's-in-the-East, deposed to purchasing "Beecham's pills" from the defendant at his solicitation which were not genuine.

Mr. William Moss, St. Helens, who is in prosecutor's employment and superintends the manufacture of Beecham's pills, said he had examined the pills package by package; the labels were genuine, but the pills were spurious. An application for showcards, etc., was received from the defendant, and also for small tissue wrappers, of which 1,000 were sent along with the labels.

The Judge: Do you sell the wrappers or give them?

Witness: Give them, my Lord.

Defendant: The advertising-matter is sent to anyone who likes to apply for it?—Yes, sir.

Defendant: Are your pills sold in France?—Yes, sir.

Defendant: Is the formula disclosed there?

Witness: No; the formula is not put on the package. We have never disclosed the formula in France or in any other country.

Defendant went on to ask the witness if he had knowledge of a Quackery Act which it was proposed to pass in New Zealand.

Mr. Purcell: New Zealand? Are we not going a long way from Shadwell? (Laughter.)

His Lordship: What they want to do in New Zealand has nothing to do with us here.

In his defence Northwood admitted receiving Mrs. Palmer's order. When it was executed they were short of Beecham's pills, and his wife unfortunately made a mistake, and packed other pills for Beecham's. This was in the hurry of business in the week before Christmas, and he personally did not know that Mrs. Northwood had made up the quantity of genuine Beecham's with other aperient pills.

Mrs. Laura Northwood said she sent the orders out, and the mistake was hers alone. They were short of Beecham's pills, and she made the quantity up with others.

Mr. Purcell thereupon recalled Mr. Moss, who said he examined all the pills which Mrs. Palmer got from the defendant. None of the pills were Beecham's.

In summing up, his Lordship said the proprietors of patent medicines had a right to the protection of the law. Three months after the defendant had apologised and faithfully promised never to repeat his offence, he sent Mrs. Palmer packets of the very same pills, all of which he said he had handed over to Mr. Lockwood.

The jury found the defendant guilty, and his Lordship sentenced the prisoner to pay a fine of 20*l.*, and to pay costs not exceeding 20*l.* to the county.

Northwood: I am not in a position to pay.

His Lordship: In default three months'.

All the pills seized were ordered to be confiscated.

THE NOTTINGHAM ARSON CASE.—There was an echo of this case at Spilsby, Lincolnshire, on January 20, when William Boyce, of Partney Mill, appeared before the Magistrates at the Petty Sessions and explained that his daughter had been in the employ of Mr. and Mrs. W. Thomson at Nottingham, and had lost about 30*l.* worth of things. Mrs. Thomson had written from Scotland saying that the girl would have to find another situation. The applicant wanted to know the best course with regard to compensation, and was advised to consult a solicitor.—Thomson, Lee, and Bradbury appeared

again in the dock at the Nottingham Guildhall on January 22, and were formally remanded till January 24. Ten more witnesses have to be called, and it is hoped that the case may be finished in one more sitting.

MESSEES. ERNEST L. HART & Co., Colonial brokers, 10 and 11 Mincing Lane, E.C., have granted a deed of arrangement for the benefit of their creditors, the largest claim being 3,661*l.* (J. F. Adair & Co.).

ALBUMEN.—At West Ham Police Court on January 17, Henri Lyon, trading as J. Lyon & Co. at Mark Lane, London, E.C., was summoned by the Port of London Sanitary Authority as the owner of four cases of whites of eggs at the Victoria Docks, which were alleged to be unfit for human consumption. The case was adjourned to allow expert evidence to be called for the defence.

AT A MEETING of the creditors of the late Mr. T. R. Ashton, pharmaceutical chemist, Clifton Street, Blackpool, on January 15, it was resolved to carry on the business at 2 Lytham Street by the executrix (Mrs. Ashton) and Mr. Thraves, accountant, Liverpool (the nominee of the creditors), with a view to the sale of the business and the distribution of the assets, which are estimated at 512*l.*, 19*s.* 10*d.*, exclusive of goodwill.

GROCERS AND CHEMISTS.—The letter from the Secretary of the Cardiff Pharmaceutical Association, suggesting a federation of that Association with that of the grocers and kindred trades for their mutual benefit, was considered at a meeting of the Cardiff Grocers' Association on January 21. Several members approved the suggestion as likely to result, among other things, in a general agreement for a whole-day holiday on a fixed date, and the President and Vice-Presidents were appointed as delegates to attend the suggested conference.

IS A "CORDIAL" A DRUG?—The case of the Great Northern Railway Co. *v.* G. L. Greenwood & Co., Ltd., manufacturing chemists, Keighley, in regard to the payment of a balance of 17*s.* 9*d.* for the carriage of "drugs" came up for judgment at the Keighley County Court on Wednesday, January 22, before Judge Bompas, K.C. The defendants had been in the habit of sending a carminative cordial and paying the cordial rate, which is lower than the drug rate, and the railway company claimed the difference. The hearing was fully reported in the *C. & D.*, December 28, 1907, p. 964. On Wednesday his Honour gave judgment for the plaintiffs for 17*s.* 9*d.*, but without costs. We reserve our report of what was said until next week.

SALE OF INVALID PORT.—On January 17 Messrs. Stokes & Co., chemists, Stapleton Road, Bristol, were summoned at the instance of the Bristol Temperance Federation for selling liquors without a licence. Mr. John H. Nunn, representing the Federation, said that the chemists' shops in Bristol had been visited with the view to seeing that the wines, etc., sold as medicated were all right. At Messrs. Stokes's shop it was found that invalid port, sold in bottles as medicated port, was only medicated by adding extract of malt. For the defence it was urged that the defendants thought they were within their rights in selling the wine in a manner that met the requirements of the licence. They offered to cease selling the port wine. The Magistrates, on the suggestion of the prosecution, allowed the summons to be withdrawn.

THE COCAINE FATALITY.—At the inquest at Westminster, on Wednesday, January 22, on the woman Farvish, who died after cocaine had been injected into her gums by a Russian druggist named Zeifert, the Coroner (Mr. Troutbeck) asked one of the witnesses (a police sergeant) why he called Zeifert's place "a chemist's shop." The reply was that it was a shop for the sale of drugs. Patent medicines, drugs, "and the usual articles sold by chemists" were exposed for sale. The Coroner said he asked the question because he was informed that Zeifert was not a registered chemist and druggist, and Zeifert's counsel admitted that his client was not registered in this country. The label on the bottle produced at the inquest bore in print the words "Poison. Soho Drug Stores, 54 Broad Street, Soho, W.," and "Cocaine hydroch." in handwriting.

DEED OF ARRANGEMENT.—Boxall, Frederick, 100 The Broadway, and 96 Chichele Road, Cricklewood, Chemist and Druggist.—Trustee, G. M. White, 14 Jewry Chambers, E.C., chartered accountant. Dated, January 9; filed, January 15. Secured creditors, 300*l.*; liabilities unsecured, 1,345*l.*; estimated net assets, 1,254*l.* The scheduled creditors include Messrs. Allen & Hanburys, Ltd., London (69*l.*); Barclay & Sons, Ltd., London (344*l.*); F. S. Cleaver & Sons, Ltd., London (10*l.*); Hodgkinson, Prestons & King, London (46*l.*); Idris & Co., Ltd., London (117*l.*); S. Maw, Son & Sons, London (30*l.*); Meggeson & Co., London (81*l.*); Wright, Layman & Umney, Ltd., London (37*l.*); Willows, Francis, Butler & Thompson, Ltd., London (44*l.*); Hancock & Co., Ltd., London (259*l.*); A. H. Solomon, London (120*l.*); Townsend & Sons, Exeter (17*l.*).

BLUNTS, LTD.—This company of store chemists, carrying on business at Coventry and Northampton, at an extraordinary meeting held on November 18, 1907, passed the following resolution:

"That it has been proved to the satisfaction of this meeting that the company cannot by reason of its liabilities continue its business, and that it is advisable to wind up the same; and accordingly that the company be wound up voluntarily, and that Edwin Playster Steeds, of Northampton, chartered accountant, be and he is hereby appointed liquidator for the purpose of such winding-up."

Printed notification of the matter, signed by Mr. J. H. Blunt, chairman, has been duly issued to the creditors. We learn from Messrs. Barclay & Sons, Ltd., 95 Farringdon Street, London, E.C., that they have not been able to obtain a list of creditors, and they would be glad if any firms who are creditors of Blunts, Ltd., would communicate with them (Messrs. Barclay & Co.).

SALE OF A CHEMIST'S BUSINESS.—Mr. Justice Swinfen Eady, in the Chancery Division on Wednesday, January 22, heard an action in which Mr. Alfred Heap, chemist and druggist, Kendal, sought specific performance by the defendant, Mr. Frederick J. Nash, chemist and druggist, Stafford, of an agreement for the sale and purchase of his branch pharmacy at Bowness. It appeared that an agreement had been come to to sell the business for 440*l.*, payable in instalments. The defendant paid a deposit of 22*l.*, but stopped the cheque before it was presented and refused to carry out the agreement. The defendant now denied that the agreement was completed, and alternatively said he was induced to enter into the alleged agreement by misrepresentations as to takings and the value of the stock and fixtures. After hearing evidence his Lordship dismissed the action, but without costs.

POISONINGS.—At an inquest held at the City Coroner's Court on Wednesday, January 22, it was stated that deceased, a vellum-binder named Fitzpatrick, had poisoned himself with hydrochloric acid, which had been purchased from an oil and colour man. The vendor had labelled the container "Poison" and with his name and address, for which he was commended by the Coroner (Dr. F. J. Waldo), who pointed out that spirit of salt was a dangerous poison, which, by a curious anomaly, could be sold by anyone without restriction. He (the Coroner) was strongly of opinion that hydrochloric acid should be placed on the schedule of poisons and that it should be sold only by chemists; but one of the jurors held that spirit of salt was a "trade poison," and not a "medical poison," and if there were restrictions on its sale trade would be hampered.—At the same court, on the same day, an inquiry was held into the circumstances of the death of a city constable named Robinson, who died from irritant poisoning. It was at first thought that ptomaine-poisoning was the cause of death, but a *post-mortem* examination disclosed indications of some acute irritant, which Dr. Woodman, of St. Bart's, thought might be arsenic or mercury. The inquiry was adjourned to allow of a toxicological examination of the intestines, and for the analysis of the contents of three bottles of medicine and a box of pills found in deceased's rooms.—Elizabeth Grace Davey (56) was found dead in bed on January 18, and a coroner's jury found that she had committed suicide by taking an overdose of chlorodyne.

Association Affairs.

NOTTINGHAM PHARMACEUTICAL ASSOCIATION.—Mr. R. Fitz-Hugh, J.P., presided over a well-attended meeting of this Association in the Baptist School-room, Mansfield Road, on Wednesday evening, January 22, when Mr. H. Gill, M.S.A., gave a lecture on "The Stately Homes of England." The discourse was illustrated by a number of excellent lantern views, and Mr. Gill was cordially thanked at the close.

LLANELLY CHEMISTS' ASSISTANTS' ASSOCIATION.—The members at a meeting held on January 15 discussed the question, "Should Chemists' Assistants Support Company Druggists?" Mr. J. C. M. Wade opened on the affirmative and Mr. T. Lewis replied in the negative. The discussion proved very exciting, all present taking part. When the motion was put to the meeting the negative side was carried by a small majority.

PHARMACEUTICAL SOCIETY G.B.—The third evening meeting of the session of the North British Branch was held on January 22. Mr. J. P. Gilmour (Glasgow), Vice-Chairman, presided, in place of Mr. Lunan, Chairman of Executive, who was absent through indisposition. The papers are given on pp. 122 and 123 of this issue. The reading was followed by an interesting discussion, several members remarking on the heroic doses of Dr. Chamberlen's pills. Mr. Tocher's paper drew from Mr. Boa a criticism which showed that he clings strongly to the old methods of making ointments. He defended paraffin as a very useful basis, while, on the other hand, Dr. Minto McDonald upheld the necessity for

making progress, and commended Mr. Tocher for discarding the harder preparations for ointments. Lister's introduction of paraffin was for surgical wounds, and was before antiseptic days. The third paper, read by Dr. McDonald, on solution of chloride of antimony we hope to deal with next week.

BRADFORD CHEMISTS' CONVERSAZIONE.—A conversazione was held on Tuesday last at Bonnet's Restaurant, Darley Street, Bradford. There was an attendance of seventy members and friends, the company including Mr. H. R. Jackson (President of the Association), Mr. and Mrs. John Jackson, Mr. M. Firth (Secretary) and Mrs. M. Firth, Mr. Priestley, Mr. and Mrs. Gordon, Mr. Kendall Jackson and Mrs. Jackson, Mr. and Mrs. H. G. Dutton, Mr. and Mrs. A. Hanson, Mr. and Mrs. Mitchell, Mr. and Mrs. F. J. Taylor, Mr. W. Dunn, jun., and Mrs. Dunn, and Mr. and Mrs. Pilkington Sargeant (Leeds). A guessing competition for the ladies was a very enjoyable part of the programme. Each gentleman had the photograph of a great man pinned on his breast, and the ladies had to guess whom the photographs represented. The first prize was awarded to Mrs. Normington, and the second to Mrs. Barker. Musical items were rendered by Mr. Percy Abbott, Mr. Silverwood, Miss Hodgson, and Miss Silverwood. Mr. Feather, conjurer and ventriloquist, also performed. Supper was served in the course of the evening.

WESTERN CHEMISTS UNBEND.—A welcome and much-appreciated innovation in connection with the Western Chemists' Association was inaugurated on Wednesday evening, January 22, at the Hotel Tudor, Oxford Street, W., by a conversazione and dance. It was the first "fling" ever indulged in by this decorous Association, and it was a decided success. Over a hundred were present, and under the assiduous and courteous generalship of Mr. H. Raithby Procter (the Hon. Secretary), with Mr. R. L. Whigham and Mr. W. F. Gulliver as able adjutants, the affair was carried off with such *éclat* that the general opinion was expressed at the close that "many more such" was indicated. Among those present we observed Dr. W. Harrison Martindale and Miss Martindale, Mrs. J. F. Harrington, Mr. John D. Marshall, Mr. W. Lamond Howie, Miss Craig, Mr. and Mrs. Edmund White, Mr. J. W. Taplin, Mr. and Mrs. W. J. I. Philp, Mr. W. Browne, Mrs. W. F. Gulliver, Mrs. H. R. Procter and Miss Procter, Mr. C. T. Allen, Mr. J. W. Shaw and Miss Shaw, Mr. and Mrs. F. W. Gamble, Mr. J. Cofman, Mr. Royle, Mr. E. W. Hill, and Mr. J. W. Smith. In the course of the evening songs were rendered by Miss Procter, Miss Shaw, and Mr. Sydney Jamieson, and these proved a valued and restful interlude to the terpsichorean devotees. The company unwillingly dispersed at midnight, and Messrs. Procter, Gulliver, Whigham (the M.C.s) and the President of the Association were congratulated on all hands on their triumph.

Business and Personal.

SIR JOHN T. BRUNNER, M.P., has resigned his position as a magistrate of the county of Cheshire.

BIRTH.—At Strathbeg, Cults, Aberdeen, on January 20, the wife of J. R. Reith, chemist, of a son.

MESSRS. INCH & Co., chemists, are opening premises at 178 Kennington Park Road, London, S.E.

BARRAY, LTD., dispensing chemists, have re-opened the premises at 95 Great Eastern Street, London, E.C.

MR. ERNEST KENT, of Messrs. G. B. Kent & Sons, Ltd., has been elected President of the British Brush Manufacturers' Association.

MR. WM. WALLACE, King Street, Aberdeen, has been appointed chemist to the Bon Accord Lodge No. 7100, Ancient Order of Foresters.

"KAROX" and "Nitrox" compounds can no longer be supplied unstamped for dispensing purposes. The Karox Manufacturing Co., Ltd., inform us that the Board of Inland Revenue have withdrawn the concession.

THE DEATH took place at Stonehouse, Devon, on January 15, of Mr. William S. Maunder, who was for many years in business as a chemist at Edgecumbe Street, Stonehouse. Mr. Maunder, who retired some years ago, was seventy-five years of age.

WILLS.—The late Mr. James Fisher, chemist and druggist, Sutton, Surrey, left estate valued at 1257. 19s. 11d.—The late Mr. Jephtha Priestley, Waterfoot, near Manchester, representative of Messrs. R. Parkinson & Sons, manufacturing chemists, Burnley, left estate valued at 9737. 8s. 6d. gross and at 8137. 16s. 6d. net.—Mr. William Oldham, J.P., chemist and druggist, Burslem, Staffs, who died on July 7, 1907, left estate valued at 5267. 2s. 4d. gross.—Mr. Howel Bennett Williams, chemist and druggist, Hereford, who died on November 23, 1907, left estate valued at 8,0967. 10s. 6d. gross, including 3,4027. 9s. 8d. net personality. Mr. Williams left land at Barton and elsewhere in Hereford to his nephew Mr. Walter Thomas Williams, to whom also he bequeathed the balance of the proceeds of sale of his business and business premises.

Market Matters.

THE reduction in the Bank rate to-day from 5 per cent. to 4 per cent. has created a good impression in business circles, as only $\frac{1}{2}$ per cent. reduction had been anticipated. Since we closed our white-paper section for press an advance of 30s. per ton has been made in *Glycerin*, which brings the price of double-distilled quality to 66s. 6d. per cwt. in tins and cases for lots under 5 cwt. The market is very firm with a good demand on U.S.A. account. *Balsam Canada* has advanced 2d. to 2s. 2d. spot in cases. The deliveries of crude drugs from the warehouses since the auction, principally for the home trade, have been extremely good; but the export side is quiet. No Curaçao *Atocs* has arrived, but further sales of gourds have been made. Sales of Palembang *Benzoin* ex-auction have been made at 42s. 6d., there still being a fair inquiry. Genuine Spanish *Ergot* is quoted from 1s. 3d. upwards for shipment direct from Spain, that offering at 11d. net ex-wharf being probably sifted Russian. *Scammony root* is scarce and wanted, the nominal value of Smyrna being 30s. per cwt. Small sales of East Indian *Ipecacuanha* are reported at 5s. 10d. from first hands, and there has recently been more inquiry for Rio, further sales of which have been made at 5s. 6d. and Minas at 5s. 4d. Ten bales of Rio and three of Cartagena have arrived. About 40 bales grey Jamaica *Sarsaparilla* are close at hand; also 14 bales Ecuador and six bales native Jamaica. In *Opium* practically no business has been done, the value of good Smyrna druggists on spot being about 15s. per lb. for 10 per cent. to 11 per cent., and for soft-shipping from 18s. to 20s. is asked, according to content. In Persian there is also nothing doing. Probably a few cases could be had at 12s. 6d., but 13s. is nearer the value, this figure also being asked to arrive. The Amsterdam cinchona sale opened at 3.40c., being about 10 per cent. lower, but the actual average unit paid was 3.42c. Our telegram had not arrived at time of closing for press. Our New York cable (January 23) states business is fair. *Opium* has been reduced to \$4.70 per lb. *Hydrastis* is higher at \$1.83. Wayne County peppermint oil is unchanged at \$1.60, and spearmint oil has advanced to \$3.50 per lb. *Balsam copaiba* is unsettled at 50c. for C. and S. American. At the spice auctions 10 barrels of St. Vincent *Arrowroot* offered and sold without reserve at 2½d. per lb., and for 53 bags Aleppo *Pepper* 3½d. to 3¾d. was paid without reserve; 120 bags Saigon also sold, without reserve, at 3¾d. for fair. Rather easier prices were paid for white pepper at auction, including fair Singapore at 5½d.; good Muntok was bought in at 7d. per lb. About 100 packages Ceylon *Cinnamon* sold, including good bold chips at 4d., and quillings at from 4½d. to 5½d. per lb. Cochin *Coconut* oil is 1s. easier on spot at 41s., but Ceylon is unaltered at 29s. *Petroleum* is quiet and unchanged. *Rape* oil is dearer at 33s. 6d. for ordinary brown on spot, and at 35s. 6d. for refined. *Cottonseed* oil has also advanced to 23s. 3d. for crude, 24s. for ordinary pale refined, and 26s. for sweet refined. *Turpentine* is cheaper on the week at 38s. 3d. for American on spot. The average price of turpentine in London last year was 44s. 3d., as against 47s. 3d. in 1906, and the average quotation of strained resin was about 10s. 5d. per cwt., as compared with 10s. in 1906. Our imports of turpentine declined from 25,600 tons to 25,500 tons, while the imports of resin increased from 82,500 tons to 82,800 tons. About 77 per cent. of the turpentine comes from the U.S.A. and 19 per cent. from Russia.—Our Bergen correspondent writes on January 20 that stormy weather has prevented cod-fishing during the past week. The reports, however, in regard to the condition of the fish are promising. The *Cod-liver* oil market is somewhat barely supplied, and finest non-congealing Lofoten oil has been sold at the equivalent of 66s. per barrel f.o.b. Bergen. The exports from that port up to date amount to 448 barrels, against 589 barrels at the same period of last year.—Our Liverpool correspondent writes on January 22 that good seconds Calcutta *Castor* oil remains steady at 3½d. to 3¾d. per lb., while for shipment 3¾d. to 3½d. is wanted. First pressing French meets with a small demand, but is firm at 3½d. spot. *Linseed* oil is firm at from 23s. to 24s. per cwt. naked, seed being comparatively scarce. Through lack of demand *Arsenic* is quiet at from 257. to 267. per ton. *Turpentine* is rather easier at 39s. to 39s. 6d. spot. A large business has been done in *Quillaia* to arrive and on spot. Sellers now ask 317. per ton, limited quantities only being offered, while for shipment there are practically no sellers. The sales of *Honey* include 35 cases Californian at 43s. 6d. to 45s., and sales of Sierra Leone *Beeswax* have been made at 67. 10s. per cwt. in store. From New York our correspondent writes on January 14 that conditions governing the drug market have improved since the beginning of the year, buyer showing more interest, though still confining their order within jobbing limits. *Opium* is again lower, and *hydrastis* is firmer. Curaçao *Atocs* in boxes is available in one quart at 8c. for single packages, but the general quotations are 9c. to 11c. as to quantity. Gourds can be obtained at 1c

advance on these latter figures. Cape is worth 8½c., and commercial Socotrine 18c. Some Japanese refined *Camphor* has arrived, and competition among the various interests continues brisk. Prices are irregular at 68c. to 70c., the lower figure being the surface quotation of only one dealer. The prevalence of high prices for *Canada Balsam* is retarding consumption, and \$3.50 per gal. is now quoted where \$3.60 was formerly asked. Otherwise the position on spot continues firm owing to scarcity, and up to \$4 is considered a fair price by some holders. The Oregon variety has been coming in of late, and business has been done at \$1.70. *Cascara sagrada* continues in easy tendency. Prices are merely nominal at 9c. to 11c., the notion prevailing that any heavy order would be filled at a substantial reduction. The local stock of *Copaiba* has been augmented by the arrival of 200 cases from producing centres, but the former price of 50c. is said to be warranted by the cost of placing the drug on the market. The presence of low-valued goods is having a depressing effect, however, and lower prices for genuine may result. \$1 is asked for a lot of Para newly arrived. *Hydrastis* has recovered its position, \$1.85 being now an inside quotation for desirable lots. *Mandrake* has sold fairly well; several round parcels changed hands at 8½c. The drug is in limited supply, and higher prices may be expected to follow any increased demand. The weakness of Smyrna opium at primary sources, coupled with the advent of Persian drug, is having an adverse influence on the spot market, and \$4.85 is openly quoted. Moderate supplies can be obtained from the weaker holders at a concession. Whether the effect of the general trade recovery will be sufficient to check the downward course of opium values is doubted. The movement in American *Peppermint oil* continues slow, but there is no selling pressure in Western markets, and \$1.60 to \$1.70 is quotable for "tin" oil as formerly. Moderate sales of case oil are reported at \$2.45. *Santonin* has declined to \$3.55 in sympathy with foreign markets. Mexican *Sarsaparilla* is in freer supply, and lower at 7½c. *Senega* is fractionally lower at 47½c., owing to dulness. Following the sales of large parcels of *Spear-mint oil* the price advanced to \$2.50 per lb. The oil is coming into extensive use as a chewing-gum flavour.

Continental Drug and Chemical Markets.

BALSAM PERU is dull of sale. Supplies which had not been counted upon are arriving in Hamburg, and the stocks are thereby increased, as there is no corresponding demand. Prices show a tendency to decline gradually, though 20m. to 21m. per kilo. is still paid for best qualities.

CADMIUM.—During 1907 renewed interest has been shown in cadmium, and it has been put to many new uses. Upper Silesia is the principal industrial centre. The production, which in 1882 amounted to 3,521 kilos., rose during the course of fifteen years to 15,527 kilos., in 1897 it declined to 9,840 kilos., and again increased in 1906 to 27,561 kilos. The production for 1907 is estimated at 32,000 kilos. The considerable amount of cadmium found in the zinc ores in the Joblin district of the United States induced Germany to take up the production at the beginning of last year, and the output is estimated at 7,000 to 8,000 kilos. There have been considerable fluctuations in the price of cadmium metal, quotations for which were 15m. to 16m. per kilo. in 1874, but fell to 8.50m. to 9m. per kilo. in 1884 and to 4m. to 5m. per kilo. during 1888 to 1893. Then, as large quantities were needed by the State fireworks laboratory and by the Saxon Artillery Administration in Dresden, the price rose to 2,100m. per 100 kilos., and when this demand ceased a speedy decline again became apparent. Until the end of 1905 prices fluctuated from 550m. to 655m. per 100 kilos., and when, early in 1906, there was a large increase in the demand, prices promptly rose again, and last year reached their highest level at 1,500m. per 100 kilos. Present quotations are at 750m. to 800m. per 100 kilos.

CAERNAUBA WAX.—When consumers had satisfied themselves that there was a decided change in the position of wax more interest was shown. The orders which have been coming in have also caused certain operators who were generally supposed to have made sales for which they had not covered to make contracts. In consequence prices advanced still further. Considerable business in grey qualities was done during the last few weeks, though the activity has hardly yet become general. Brazil itself now shows no great inclination to take up offers. Present quotations for available supplies are as follows: Fatty grey 225m. to 222.50m., current grey 220m., medium yellow 240m., current yellow and fine yellow 270m. to 305m., according to quality, all prices net per 100 kilos. ex warehouse.

SENEGA.—Supplies from America are offered at cheaper rates, and prices have also declined in Germany, so that present quotations are at 500m. to 510m. per 100 kilos. Owing to the financial conditions which prevail in America, holders are more disposed to sell, and, owing to this and to the fact that there is only a small demand, a further reduction may be anticipated.

Coming Events.

Notices for insertion under this heading should be received by the Editor on Wednesday of each week.

Wednesday, January 29.

Society of Arts, John Street, Adelphi, London, W.C., at 8 P.M. Mr. J. W. Gordon on "The New Patent Act."

Bournemouth Pharmaceutical Association, Gervis Hall Restaurant, at 8 P.M. Whist-drive. Tickets (2s. each) can be had from Mr. W. A. Bingham, Hon. Secretary, Charmingston Road.

Cardiff Pharmaceutical Association, Angel Hotel, at 4 P.M. General meeting; at 6 P.M., annual dinner. Mr. J. F. Harrington, Vice-President of the Pharmaceutical Society, will be present. Tickets (6s. each) may be had from the Hon. Secretary, Mr. J. D. Jenkins, 112 Crwys Road.

Edinburgh Chemists', Assistants', and Apprentices' Association, 36 York Place, at 9.15 P.M. Mr. W. B. Cowie on "Pills."

Thames Valley Chemists' Association, Kingston Hotel, Kingston, at 8 P.M. Mr. R. R. Bennett, B.Sc., on "Odds and Ends of Zoology."

London Chemists' Association, St. Bride Institute, Ludgate Circus, E.C., at 3.30 P.M. Discussion on the proposed union of qualified chemists, opened by Mr. W. F. Mawer.

Stockport Chemists' Association, County Restaurant, St. Petersgate, at 8 P.M. Mr. R. Lord Gifford on "Pharmacy Prospects." All registered chemists in the district are invited to be present.

Public Dispensers' Association, St. Bride Institute, Ludgate Circus, London, E.C., at 8 P.M. Mr. O. A. Elias, F.C.S., on "Patents and Trade-marks."

Plymouth, Devonport, and Stonehouse Chemists' Association, 7 Whimble Street, Plymouth, at 2.45 P.M. Quarterly meeting.

Thursday, January 30.

Cheltenham Chemists' Association, 5 Promenade, at 8.45 P.M. Election of officers and report of formulary committee.

Chemists' Assistants' Association, 73 Newman Street, Oxford Street, London, W., at 9 P.M. Whist-drive.

Barnsley Chemists' Association, Royal Hotel, at 7 P.M. Mr. J. B. Pater (Sheffield) on "Half an hour at the Dispensing Counter."

North Staffordshire Chemists' Association, North Stafford Hotel, Stoke-on-Trent, at 6 P.M. Annual dinner, at which Mr. J. Rymer Young, President of the Pharmaceutical Society, will be present. Tickets (5s. each) can be had from Mr. Thos. Bentley, Stoke-on-Trent.

Midland Pharmaceutical Association, Grand Hotel, Birmingham. Whist-drive, at 6.30 P.M. Tickets, including supper, 4s. each, or 7s. 6d. for double ticket (lady and gentleman), from Mr. J. A. Radford, Hon. Secretary, 14 Union Street, Birmingham.

Friday, January 31.

Royal Institution of Great Britain, Albemarle Street, Piccadilly, London, W., at 9 P.M. Professor Ernest Rutherford on "Recent Researches on Radio-activity."

THE annual dinner of the School of Pharmacy of the Pharmaceutical Society of Great Britain will take place at the Balmoral Rooms, Trocadero Restaurant, London, W., on February 27, when Mr. J. C. Umney will take the chair. Tickets may be obtained from the Hon. Secretaries (R. V. Saunders and H. Arnfield), 17 Bloomsbury Square, W.C.

THE annual dinner of the Huddersfield Chemists' Association will be held at the Queen's Hotel on February 12. The President of the Pharmaceutical Society has promised to be present. Tickets may be had from the Secretary, Mr. W. T. Armitage, 62 Westbourne Road, Huddersfield.

THE annual dinner of the Leicester Chemists' Association is to be held at the Bell Hotel, Humberstone Gate, on February 27. The Hon. Secretary (Mr. G. E. Marfitt) will supply further particulars.

THE annual ball in connection with the Sheffield Pharmaceutical and Chemical Society is to be held on February 6 at the Royal Victoria Hotel. Tickets (7s. 6d. each) may be had from Mr. J. Brewster Pater, Hon. Secretary, 265 Fulwood Road, or any of the stewards.

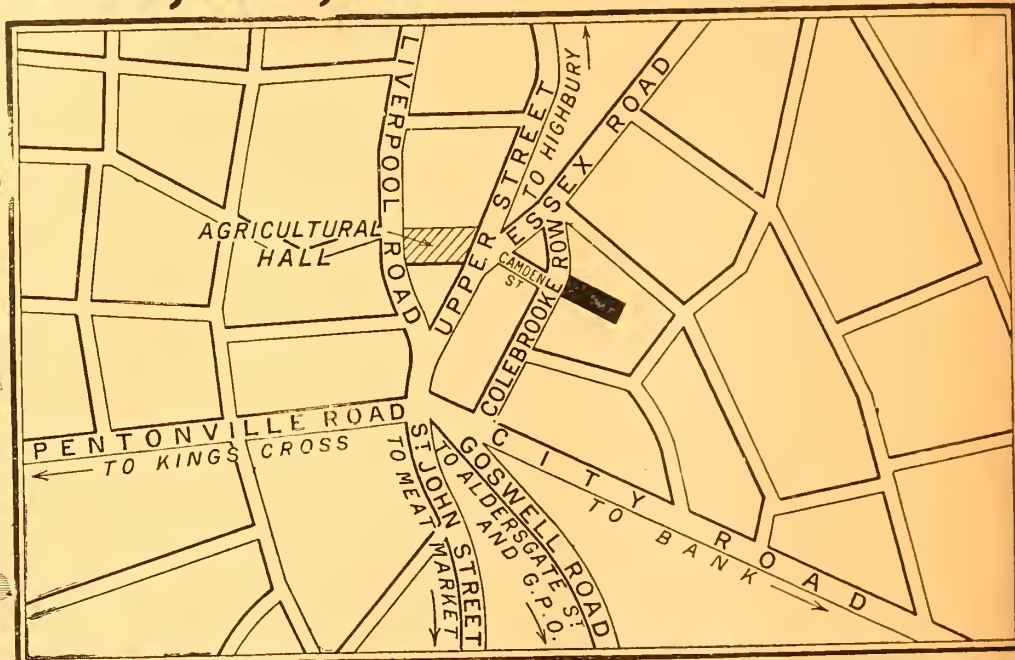
THE twenty-seventh Junior Pharmacy Ball will be held this year at the Portman Rooms, Baker Street, London, W., on February 26. Tickets (7s. 6d. each) can be had from Mr. J. E. Southon, 8 Leadenhall Street, E.C., or from any of the stewards.

MARSHALLS', LIM.,

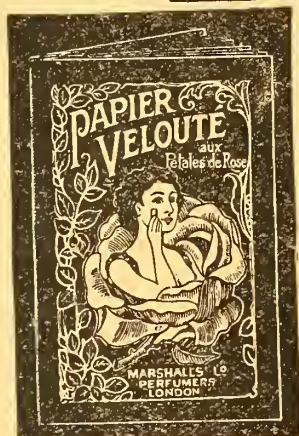
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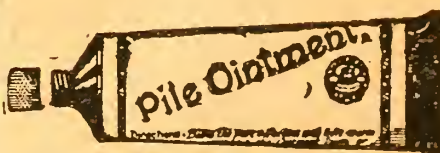


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